

administration report

for the year 1966-67

HEALTH SERVICES DEPARTMENT



HEALTH AND LABOUR (A) DEPARTMENT

G.O. (P) 61/68/HLD., dated 17th February 1968

Abstract.—Administration Report 1966-67—Health Services Department and E.S.I. Scheme—Reviewed.

Read.—Letter No. Pedl. (Vs) 45/67, dated 27th December 1967 from the Director of Health Services.

ORDER

The Administration Report of the Health Services Department for the year 1966-67 is recorded.

2 Dr. V. S. Gopalakrishnan continued as the Director of Health Services.

Medical Institutions

3. Eleven new institutions were opened during the year under review bringing the total number of institutions to 489 (one institution could not be included in the previous year's report). The bed strength was 18,683 as against 17,376 of the previous year. The number of in-patients and out-patients treated during the year under review was 8,54,496 and 25,106,661 respectively as against 805,448 and 23,224,990 in 1965.

Grant-in-aid Institutions

4. During the year 1966, there were 14 grant-in-aid institutions functioning in the State. The bed strength of the grant-in-aid institutions was increased to 1,167 from 1,150 of the previous year. The number of in-patients and out-patients treated in these institutions during the year was 15,742 and 244,548 respectively. There was fall both in the number of in-patients and out-patients compared to the previous year.

Government Medical Stores

5. The administrative set up and functional organisation of the Medical Stores continued to be same as in the previous year. Medicines and equipments worth Rs. 1,09,07,107.52 were supplied to the State through General Medical Stores.
made to other

departments on payment basis. The tablet manufacturing unit started functioning from 1st July 1966 and drugs worth Rs. 2 lakhs (approximately) were manufactured in this Unit. There is a net profit of Rs. 20,369.68 to Government on this account.

Registration of Vital Statistics

6. The Director of Health Services continued to be the Registrar General of Births, Deaths and Marriages. The estimated population of 1966 was 19,014,308. The total number of births registered during 1966 was 428,207 giving a birth rate of 22.52 per mille of population. The corresponding figures for the previous year were 415,109 and 22.32. Out of the total number of births, 220,883 were males and 207,324 were females giving a sex ratio of 107 male births per 100 female births.

Death and death rate.—The number of deaths registered during the year was 1,02,245 with a death rate of 5.38 per mille of population. Of the total number of deaths 53,729 were males and 48,516 were females. There is a small rise in the death rate when compared to the previous years. The sex ratio in death was 111 male deaths to 100 of female death.

Infant mortality.—The number of infant deaths registered during the year was 11,138 giving a mortality rate of 26.01 per 1,000 of the births registered. The corresponding figures for 1965 were 11,323 and 27.28 respectively. The infant mortality rate has fallen.

Registration of marriages.—The number of marriages registered during 1966 under various Marriage Acts was as follows :—

Special Marriage Act	..	25
Special Marriage Act (Indian)	..	48
Hindu Marriage Act	..	1285

Control of Communicable Diseases

7. The epidemic of cholera that broke out in 1965 subsided during the later part of the year itself. Out of 3,562 Gastroenteritis cases reported 214 cases were bacteriologically confirmed as cholera. There were 196 deaths of which 50 were bacteriologically confirmed cases. To prevent the recurrence of cholera a mass inoculation campaign was organised.

Small-pox.—There were 631 small-pox cases with 221 deaths. Eventhough there was no epidemic of small-pox during the year, a small rise was exhibited in the Districts of Kozhikode and Cannanore. The attack phase of Small-pox Eradication Programme which was launched on 1st April 1962 was completed by the end of 1966.

T.B. Control.—There were three major hospitals and 20 T.B. clinics in the State for the treatment of T.B. patients. The total number of beds available in all the institutions was 1,886. The number of

out-patients treated during the year was 119,628. The five District T.B. Centres continued to function. The two other District T.B. Centres at Palluruthy and Trichur were supplied with equipments by the Government of India.

Leprosy Control.—The two hospitals and 154 S.E.T. Centres including 1,000 patients were under review during the year. 1,209 patients were treated.

V. D. Control.—The V. D. Clinics attached to the Medical College Hospitals, the District Hospitals and W and C Hospitals continued to function.

Maternity and Child Health

8. This section continued to provide all maternity services to the assistance of W.H.O. and 1,209 centres during the year as against 1,209 centres during the year.

Family Planning

9. In accordance with the recommendation of the Mukherjee Committee the State Family Planning Bureau was strengthened with additional staff. The entire Family Planning Programme was reorganised with a view to making it time-bound and target oriented. The target for sterilisation operation and I.U.C.D. insertions was fixed at 166,950 and 84,382 respectively. The achievements for the year both in sterilisation and I.U.C.D. insertions are given below.

	Target	Achievement
Sterilisation	166950	40274
I.U.C.D.	84382	40670

The Family Planning Training Centres at Trivandrum and Kozhikode started functioning this year.

Malaria and Filaria Control

10. The year under review was the second year of maintenance phase in full. All the 143 Primary Health Centres were established. These Malaria and Filaria Control Programmes continued in the 20 control units in the State through A, C, D and E type units.

Public Health Laboratory, Trivandrum

11. The Public Health Laboratory, Trivandrum caters to the needs of Government and private medical practitioners for diagnostic services. The chemical examiners section

in the previous year. Dr. V. T. Javalekhmi continued as the Director. The nutrition works in the laboratory were carried out in two divisions, viz. the State Nutrition Division and Applied Nutrition Division. The Applied Nutrition Programme was extended to 6 Blocks during the year under review.

Government Analyst Laboratory, Trivandrum

12. The Analyst Laboratory continued to function as an institution under the direct control of the Director of Health Services. During the year under review 30,191 samples were analyzed in the Laboratory consisting of 20,355 food samples and 9,839 water samples. Under food analysis out of 14,509 samples received under the Prevention of Food Adulteration Act, 5510 were collected from the municipalities and the rest from the panchayats. Out of the total 1,316 samples were found to be adulterated. During the year 1966, 6,755 samples were received for analysis from the various hospitals in the State and of this 1,622 samples were found unsatisfactory. There was an increase in the percentage of adulteration in hospital diet articles. 1,300 prosecutions were launched and 1,373 cases were disposed of. 1,136 cases ended in conviction. An amount of Rs. 1,37,923 was realised as fine.

Another important measure taken during the year under review was the strengthening of the Food Administration Wing of the Analyst Laboratory so as to bring about effective enforcement of the Prevention of Food Adulteration Act, 1954. The State was divided into three regions each region comprised of three Revenue districts, 3 posts of Regional Food Inspectors and 35 posts of Food Inspectors were also sanctioned for this purpose.

Health Education

13. The State Health Education Bureau continued to function under the control of the Assistant Director of Health Services (Health Education). The main functions of the Bureau were the production, purchase and distribution of health education materials, organisation of health education programmes in co-operation with Government and Semi-Government Departments, regular Public Health staff and community leaders. The bureau organised exhibitions and gave technical assistance to other important programmes like Family Planning, Malaria and Filaria Control Programmes, etc. A Health Journal titled "Susthithy" was brought out and two issues were published.

Public Health Training School

14. The Public Health Training School continued to function. The training courses of different durations were conducted so as to utilise the services of the Auxiliary Health Workers in the various activities of the Health Services Department.

Health Transport Organisation

15. Sri P. Mahadevan continued as the State Health Transport Officer. During the year under review 9 jeeps for Family Planning and 10 Renaults for Public Health Centres were received additionally. A mobile generator was also received from the UNICEF for the State T.B. Programme. 3 Mobil Maintenance Units were also started during the year. The organisation was awarded with the Rolling Trophy by the Government of India for the best Health Transport Organisation. Sri Mahadevan was given an individual prize also.

The Employees State Insurance Scheme

16. Dr. H. John Kirk Patrick continued to be the Administrative Medical Officer, E.S.I. Scheme. The scheme was extended to the areas at Thodiyur, Kulasekharapuram, Veliyam, Pallickal, Navaikulam and Mavoor. The part-time E.S.I. Dispensary at Kadambanad was abolished and a full-time Dispensary was started there. A new dispensary was opened at Pooyapally. The medical benefit to the insured persons and their families was made available through 52 full-time dispensaries, 5 mobile, 4 panel and 11 Government dispensaries as part-time E.S.I. Dispensaries. During the year under review, medical benefit of the scheme was extended to 1,500 insured persons at Mavoor and 1,600 persons at Navaikulam.

17. Receipts and Expenditure

	1965-66	1966-67
	<i>Rs.</i>	<i>Rs.</i>
Receipts ..	21,31,943.71	26,46,559.85
Expenditure .	5,22,07,607.64	6,01,28,159.64

18. The working of the Department during the year 1966-67 on the whole was satisfactory.

(By order of the Governor)

C. K. KOCHUKOSHY,

Secretary to Government.

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ADMINISTRATION REPORT OF THE DEPARTMENT OF HEALTH SERVICES, 1966-67

CHAPTER I

ADMINISTRATION

The organisational set up of the Department continued to be the same as in the previous year.

Dr. V. S. Gopalakrishnan continued as the Director of Health Services.

Deputy Directors of Health Services

1. Dr. T. V. Sundareswaran—Deputy Director of Health Services (M & F).
2. „ P. Krishnan Nair—Deputy Director of Health Services (Planning and Vigilance) till 20-6-1966 forenoon.
„ Mavis Gomez—Deputy Director of Health Services (Planning and Vigilance) from 20-6-1966 forenoon.
3. „ K. G. Thankamma—Deputy Director of Health Services (Family Planning and Maternity and Child Health).
4. „ Daisy Vedakan—Deputy Director of Health Services (General).

Principal, Public Health Training School

Dr. Isaac Joseph was the Principal, Public Health Training School till 1st June 1966. Dr. P. Krishnan Nair took charge on 20th June 1967.

Assistant Directors of Health Services

1. Dr. R. Subramoniam—Assistant Director of Health Services—(Health Education, Vital Statistics and Epidemiology).
2. „ K. Balaraman—Assistant Director of Health Services (Small-pox Eradication). He proceeded abroad for training in Epidemiology in Czechoslovakia under W.H.O. Fellowship.

3. Dr. C. Chandramathy Amma—Assistant Director of Health Services (M.C.E.).
4. „ K. G. Sarada—Assistant Director of Health Services (Family Planning) till 19th January 1967 forenoon.
„ George Varghese took charge on 19th January 1967 forenoon.
5. „ K. Karien—Assistant Director of Health Services. (T.B.)
6. „ S. Venkitachalam—Assistant Director of Health Services (M. & E.)
7. „ T. N. N. Bhatathiripad—Assistant Director of Health Services (Leprosy).

Sri P. Janardhana Iyer, Chief Government Analyst, was in-charge of the Food Health Administration Wing in the Directorate.

Administrative Officer—Sri K. Abdul Majeed till 30th March 1967 forenoon

Sri V. Damodara Menon took charge on 30th March 1967 forenoon.

Financial Assistant—Sri. Ramavarma Thampuram.

State Health Transport Officer—Sri U. P. Mahadevan.

Stores Officer, Government Medical Stores—Sri M. Narayanan.

A chart showing the organisational set up of the Department is appended.

The Director of Health Services was on tour for a period of 130 days. He was on inspection tour for 91 days inside the State and was on tour outside the State for 39 days.

Receipts and Expenditure

The receipt and expenditure of the Department during the period were as below :

Receipts—Rs. 26,46,559.85 (excluding grants-in-aid from Central Government).

Expenditure—Rs. 6,01,23,159.64

(Detailed statement appended)

The administration of the Department can be classified, under the following heads :—

1. Medical Services.
2. Registration of Vital Statistics.
3. Control of Communicable Diseases.

4. Maternity and Child Health and Milk Distribution Scheme.
5. Family Planning.
6. Malaria and Filariasis.
7. Food Health Administration.
8. Public Health Laboratory.
9. Government Analyst's Laboratory.
10. Health Education.
11. Public Health Training School.
12. Five Year Plan.
13. Employees State Insurance Scheme:

Details of working is furnished in the chapters following.

CHAPTER II

MEDICAL

Eleven new institutions were opened during the year under review making the total number of institutions 489 (including one institution not included in previous year's report).

The institutions newly opened were :

1. Primary Health Centre, Anchal, Quilon District
2. „ Anandapuram, Trichur District
3. „ Vengara, Kozhikode
4. „ Thalakulathur
5. „ Nadakkavu
6. „ Purannanore, Cannanore District
7. Pilot Scheme Dispensary, Mukkali, Palghat District
8. Government Dispensary at Regional Engineering College Campus, Calicut
9. Weekly Dispensary, Mathil in Cannanore District
10. T. B. Clinic, Ponnani
11. Do. Manjeri

The following conversions were also effected—

Hospitals

1. P. H. Centre, Piravom in Ernakulam District converted to Government Hospital.
2. Government Dispensary, Cherpu in Trichur converted to Government Hospital.
3. Government Dispensary, Agali converted to Government Hospital.

(c) Sex-wise classification of patients (in-door and out-door)—

	1965	1966
Male	7,155,510	7,979,285
Female	9,343,189	10,203,680
Children	7,531,739	7,778,192
Total	24,030,438	25,961,157

IV. Surgical operations—

Total number of operations	318,712	320,297
No. of major operations	51,166	43,578
No. of minor operations	267,546	276,719
No. cured	299,913	284,915
No. relieved	12,281	26,883
No. discharged	3,040	5,582
No. died	995	980
No. remaining at the end of the year	2,453	1,937

V. Parturition cases—

No. of cases attended by Medical Officers	9085	7324
No. of cases attended by Medical Officers and Midwives	29,564	27,182
No. of cases attended by Midwives alone	100,077	86,969
No. of cases attended by Private Medical Officers and Midwives	3,363	9,340
Total	142,089	130,815

VI. Post-mortem examinations—

Medico-legal purposes	3,247	3,686
Pathological purposes	62	51
Total	3,309	3,737

Grant-in-aid-Institutions

During the year there were grant-in aid institutions. They are:--

	<i>Erd</i>
1. Sree Ramakrishna Charitable Hospital, Sasthamangalam, Trivandrum ..	114
2. Rotary Club Clinic, Pozjapura, Trivandrum ..	40
3. Sivagiri Sreenarayana Medical Mission Hospital, Varkala ..	108
4. Poor Leprosy Hospital, Green Garden, Shertallai ..	210
5. Evangeline Booth Leprosy Hospital, Puthencruz ..	201
6. Dispensary, Kuruppampady ..	21
7. Chottanikara Medical Relief Society, Ernakulam ..	10
8. Damiens Leprosy Institute, Ollukkara ..	160
9. Sree Ramakrishnasramom Dispensary, Vilangans ..	10
10. M.I. Hospital, Engandiyoor ..	30
11. G.I.A. Dispensary, Thattamangalam ..	..
12. Mobile Medical Unit, Skippoo Committee, Ottappalam ..	..
13. Mission to Lepers Leprosy Home, Chevayur ..	263
14. S.E.K. Mission Hospital, Kallai ..	..
Total ..	<u>1167</u>

Patients treated in grant-in-aid institutions

	<u>1965</u>	<u>1966</u>
I. (a) No. of in-patients treated	17252	15742
(b) No. of out-patients treated	291391	244546
II. Results of in-patients treated—		
(a) No. of patients cured	11830	11612
(b) „ relieved	3887	1761
(c) „ discharged otherwise	422	1326
(d) „ died	133	136
(e) „ remaining	980	907

The amount spent for the purchase of medicines, equipments, etc., during 1966-67 under various heads is furnished below:

		Rs.
29 Medical (Non-Plan)	..	1,08,78,710
30 P. H. (Non-Plan)	..	16,67,103
29 Medical (Plan)	..	8,89,720
		<hr/>
Total	..	1,34,35,533
		<hr/>

The purchases were arranged from Government Medical Stores by inviting open tenders and quotations on all India basis. Sufficient quantity of drugs, etc., was allocated to each District Medical Stores for distribution.

30 tenders and 46 quotations were invited from the Government Medical Stores and a revenue of Rs. 6,883 was received to this Department on account of sale of tender forms.

The supplies were made on scheduled dates as per programme, chartered out in advance. Receipts and issues were made throughout the year. The total budget provision was allotted to each institution on the basis of the number of out-patients and in-patients during the previous year. The medicines, etc., were sent through Departmental lorry service and in a few cases sent by post parcel or through Kerala Road Transport Corporation.

Only four complaints regarding shortage of drugs were received and all these complaints were immediately attended to.

Government vide G.O. Rt. 2192/65/ HLD, dated 8th May 1965 sanctioned to start a Manufacturing Unit to process tablets and to re-pack from bulk. The Manufacturing Unit started functioning from 1st July 1966. Drugs worth Rs. 2 lakhs approximately were manufactured in the Unit. After interest on capital outlay, building and depreciation on machinery, etc., there is a net profit of Rs. 20,369.68 to Government. Government have accorded sanction to purchase additional equipments and machinery. Arrangements are being made to instal the equipments. As soon as the additional equipments are installed, the processing capacity will be increased. There will undoubtedly be increase in the profit side also.

CHAPTER III

REGISTRATION OF VITAL STATISTICS

The Director of Health Services continued to be Registrar-General of Births, Deaths and Marriages.

The registration of vital events continued to be compulsory during the period under the enactments and rules in respective areas:

<i>Acts and Rules in force</i>	<i>Area</i>
1. T. C. Registration of Births and Deaths Act, 1953 (Act VIII of 1953) and the rules framed thereunder	Rural parts of erstwhile Travancore-Cochin area
2. The Madras Registration of Births and Deaths Act, 1879 and rules framed thereunder	Rural parts of Malabar area.
3. Rules under the Trivandrum City Municipal Act	Trivandrum City.
4. The Kerala Municipality (Registration of Vital Statistics) Rules, 1962	All the Municipalities including Calicut Corporation.

1. The Department of Statistics continued to be the Central Agency for compilation of vital statistics. The agencies for registration of vital events were the same as in the previous year. The Health Assistants of the Department of Health Services are the Registrars of Births and Deaths in the rural areas of former Travancore-Cochin State. The Health Inspectors of P. H. Centres and Blocks were the Taluk Registrars of Births and Deaths in the area under their jurisdiction. The Assistant District Medical Officers of Health are the District Registrars. In Malabar area the Village headman continued to be the Registrars, and the Tahsildars and Collectors supervise their work. The Health staff of the Department of Health Services conducted verification.

Vital statistics for the calendar year 1966.—

1951 Census population	..	13,551,529
1961 Census population	..	16,903,715
1966 Estimated population	..	19,014,308

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females giving a sex ratio of 107 male births per 100 of female births

District-wise and sex-wise statement of deaths for urban and rural areas

District	Total			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
1	2	3	4	5	6	7	8	9	10
State ..	102245	53729	48516	26238	14369	11869	76007	39360	36647
Trivandrum ..	11005	6163	4842	5875	3372	2503	5130	2791	2339
Quilon ..	9683	5067	4616	1436	747	689	8247	4320	3927
Alleppey ..	11746	6000	5746	2795	1510	1285	8951	4490	4461
Kottayam ..	9669	5080	4589	2093	1156	937	7576	3924	3652
Ernakulam ..	9919	5212	4707	3365	1858	1507	6554	3354	3200
Trichur ..	6633	3654	2979	1903	1059	844	4730	2525	2135
Palghat ..	11207	5858	5349	1816	990	856	9361	4868	4493
Kozhikode ..	18312	9313	8799	4773	2566	2207	13339	6947	6392
Cannanore ..	14071	7182	6889	2152	1111	1041	11919	6071	5848

Deaths by months and areas

Month	State	Urban	Rural
January ..	7536	1970	5566
February ..	7309	1688	5621
March ..	7829	1938	5891
April ..	8146	2851	5295
May ..	8932	2753	6179
June ..	9067	2263	6804
July ..	10626	2510	8116
August ..	9192	2096	7096
September ..	9947	1983	7964
October ..	8272	2060	6212
November ..	7755	2066	5689
December ..	7634	2060	5574
Total ..	102245	26238	76007

Deaths by causes

<i>Cause</i>		<i>No. of deaths</i>	
		1955	1956
1. Cholera	..	225	48
2. Smallpox	..	131	255
3. Plague	..	Nil	Nil
4. Dysentery and Diarrhoea	..	2589	2
5. Respiratory diseases including pulmonary T.B.	..	10553	7077
6. Fever	..	6212	5244
7. All other causes	..	77593	85319
Total	..	97700	102215

Deaths from specified causes

		1955	1956
Malaria	..	8	10
Diphtheria	..	100	195
Whooping cough	..	147	212
Maternal deaths	..	595	551

Infant deaths.—The number of infant deaths registered during the year 1956 was 11138 giving the infant mortality rate of 26.01 per 1000 of the births registered. The corresponding figures for 1955 were 11323 and 27.28 respectively.

Among the infants died 5853 were male children and 5280 were female children. The urban area recorded 3243 deaths and rural areas 7895 deaths.

District-wise and sex-wise statement of infant deaths for urban and rural areas

District	Total			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
1	2	3	4	5	6	7	8	9	10
State ..	11138	5858	5280	3243	1736	1507	7895	4122	3773
Trivandrum ..	1302	729	573	778	464	314	524	265	259
Quilon ..	1046	546	500	163	78	85	883	468	415
Alleppey ..	952	493	459	256	153	103	696	340	356
Kottayam ..	1276	635	641	176	89	87	1100	546	554
Ernakulam ..	1127	580	547	388	185	203	739	395	344
Trichur ..	733	397	336	138	69	69	595	328	267
Palghat ..	1151	636	515	267	141	126	884	495	389
Kozhikode ..	2000	1047	953	777	416	361	1223	631	592
Cannanore ..	1551	795	756	300	141	159	1251	654	597

Maternal death

		<i>No. of deaths</i>		<i>Rate per 1000 of births</i>	
		1965	1966	1965	1966
State ..		505	564	1.21	1.31
Urban ..		72	176	0.72	1.53
Rural ..		430	388	1.37	1.23

Still birth

		<i>No. of still births</i>		<i>Rate per 1000 of births</i>	
		1965	1966	1965	1966
State ..		3571	3292	8.53	7.63
Urban ..		2362	2463	22.77	21.07
Rural ..		1209	829	3.84	2.63

TABLE I
District-wise figures of birth, death, infant death, still birth and maternal death during 1966

District	Rural/Urban	Birth	Birth rate	Death	Death rate	Still birth	Still birth rate	Infant death	Infant death rate	Maternal death	Maternal death rate
1	2	3	4	5	6	7	8	9	10	11	12
Trivandrum	Rural	21049	12.79	51.0	3.12	60	2.84	524	24.89	19	0.90
	Urban	22496	70.88	5375	18.51	336	14.72	778	34.58	29	1.27
	Total	43545	22.19	11005	5.61	396	9.01	1302	29.90	48	1.09
Quilon	Rural	41558	19.97	8247	3.96	247	5.91	383	21.25	36	0.86
	Urban	9409	91.90	1436	14.03	271	28.00	163	17.32	11	1.14
	Total	50967	23.34	9683	4.43	518	10.06	1046	20.52	47	0.91
Alleppey	Rural	31018	17.75	8951	5.12	64	2.06	696	22.44	26	0.84
	Urban	14190	48.94	2795	9.64	334	23.00	256	18.04	12	0.83
	Total	45208	22.19	11746	5.76	398	8.72	952	21.06	38	0.83
Kottayam	Rural	38267	21.19	7576	4.20	164	4.27	1100	28.74	32	0.85
	Urban	9568	66.49	2093	14.54	215	21.97	176	18.39	6	0.61
	Total	47835	24.54	9669	4.96	379	7.86	1276	26.67	38	0.78
Ernakulam	Rural	32729	18.86	6554	3.78	103	3.14	739	22.58	36	1.10
	Urban	17572	49.28	3565	9.44	475	26.32	388	22.08	22	1.22
	Total	50301	24.04	9919	4.74	578	11.25	1127	22.41	58	1.14

TABLE I—(cont.)

District	Rural*Urban		Birth	Birth rate	Death	Death rate	Still birth	Still birth rate	Infant death	Infant death rate	Maternal death	Maternal death rate
1	2	3	4	5	6	7	8	9	10	11	12	
Trichur	Rural	24149	14 05	4730	2.75	40	1.65	595	24.64	23	0.95	
	Urban	12239	97.46	1903	15.15	233	18.68	138	11.27	10	0.81	
	Total	36388	19.73	6633	3.60	273	7.45	733	20.14	33	0.90	
Palghat	Rural	28149	14.96	9361	4.97	31	1.10	884	31.40	31	1.81	
	Urban	5939	50.73	1846	15.77	58	9.67	267	44.96	10	1.67	
	Total	34088	17.05	11207	5.61	89	2.60	1151	33.76	61	1.78	
Kozhikode	Rural	49050	18.32	13539	5.06	26	0.53	1223	24.93	93	1.89	
	Urban	16038	60.31	4773	17.95	413	25.11	777	48.45	55	3.34	
	Total	65088	22.11	18312	6.22	439	6.70	2000	30.73	148	2.26	
Cannanore	Rural	47781	25.14	11919	6.27	94	1.96	1251	26.18	72	1.50	
	Urban	7006	68.54	2152	21.05	128	17.94	300	42.82	21	2.99	
	Total	54787	27.36	14071	7.03	222	4.04	1551	28.31	93	1.69	
State	Rural	313750	18.25	76007	4.42	829	2.63	7895	25.16	388	1.23	
	Urban	114457	62.85	26238	14.41	2463	21.07	3243	28.33	176	1.53	
	Total	428207	22.52	102245	5.38	3292	7.63	11138	26.01	564	1.31	

Registration of Marriages.—The Hindu Marriages Act and the Special Marriages Act and rules framed thereunder were in force in the State. The Indian Christian Marriages Act and rules framed under the Act were in force in those areas transferred from Madras State.

The Executive Officers of the Panchayat were the Marriage Registrars under the Hindu Marriages Act in the Panchayat areas. Presidents of the Panchayat were the Marriage Registrars in places where there were no Executive Officers. The Municipal Commissioners and Corporation Commissioners continued to be Marriage Registrars in the Municipalities and Corporations as the case may be under the Hindu Marriages Act. The District Registrars and Sub-Registrars of the Department of Registration continued to be Marriage Registrars under the Special Marriages Act. Marriages were solemnised under the Indian Christian Marriages Act by the Ministers of the Religion licensed under the Act while supervision was done by the District Registrars.

No. of marriages registered during the year 1966:—

1. No. of marriages registered as per the provision of the Special Marriages Act	..	25
2. No. of marriages registered as per the provision of the Indian Christian Marriages Act	..	48
3. No. of marriages registered as per the provision of the Hindu Marriages Act	..	1285

CHAPTER IV

CONTROL OF COMMUNICABLE DISEASES

A. CHOLERA

The epidemic of cholera that broke out in 1965 subsided during the later part of the year itself but sporadic cases of cholera were reported during 1966 also. Out of a total of 3562 Gastroenteritis cases reported 214 cases were bacteriologically confirmed as cholera cases. There were on the whole 196 deaths. 50 deaths recovered among bacteriologically confirmed cases.

The District-wise monthly statement of cholera/gastroenteritis for the year is given below :

District-wise statement of cholera/gastroenteritis in Kerala State during the year 1966
(January to December)

District	Trivandrum		Quilon		Alleppey		Kottayam		Ernakulam	
Month	Attack	Death	Attack	Death	Attack	Death	Attack	Death	Attack	Death
1	2	3	4	5	6	7	8	9	10	11
January	37	..	..	.	46	6	51	8	1	1
February	2	..	1	..	105	13	146	19	1	1
March	42	..	..	..	35	..	173	4	22	..
April	109	6	..	..	..	..	140	2	28	..
May	105	..	..	..	1	1	95	2	35	1
..	63	..	1	..	6	2	76	..	34	..
..	72	3	2	..	3	1	64	1	63	..
..	14	..	.	..	4	1	84	..	15	2
..	..	..	..	..	..	..	59	..	..	..
..	1	1	1	.	.	..	78	4	..	..
..	..	..	4	1	..	..	43	2	..	..
..	1	1	..	.	..	..	20	3	20	2
..	446	11	9	1	200	24	1029	45	239	7

District-wise statement of cholera/gastroenteritis in Kerala State during the year 1966
(January to December) — (cont.)

District	Trichur		Palghat		Kozhikode		Cannanore		State	
Month	Attack	Death	Attack	Death	Attack	Death	Attack	Death	Attack	Death
	12	13	14	15	16	17	18	19	20	21
January	42	..	..	..	18	1	1	1	196	17
February	87	..	7	5	..	..	98	9	447	47
March	11	..	105	7	26	4	201	7	615	22
April	6	..	112	2	73	7	58	5	526	22
May	1	..	27	..	18	..	47	3	329	7
June	..	..	65	..	25	1	26	7	316	10
July	..	..	46	..	22	1	24	2	296	8
August	..	..	23	..	19	1	40	6	199	10
September	..	..	13	..	9	2	64	4	145	6
October	..	..	7	..	..	..	3	3	90	8
November	1	..	16	..	28	11	1	1	93	15
December	10	1	5	..	254	17	..	..	310	24
Year	158	1	426	14	492	45	563	48	3562	196

District-wise monthly statement of cholera (bacteriologically confirmed cases) in Kerala State during the year 1966

District	Thiruvandrum			Quilon			Allippee			Kottayam			Ernakulam		
Month	Attack	Death	3	Attack	Death	5	Attack	Death	7	Attack	Death	8	Attack	Death	11
January
February
March
April
May
June
July
August
September
October
November
December
37	3	6	..	..	..	30	..	..	..	..	..	..	..	..	..
							6	55		20	11				2

District-wise monthly statement of cholera (bacteriologically confirmed cases) in Kerala State during the year 1965
(January to December) — (cont.)

District	Trichur		Palghat		Kozhikode		Cannanore		State	
Month	Attack	Death	Attack	Death	Attack	Death	Attack	Death	Attack	Death
	12	13	14	15	16	17	18	19	20	21
January	..	..	..	..	..	..	..	..	31	9
February	..	..	..	..	..	..	..	..	26	10
March	..	..	..	..	..	..	6	..	24	1
April	..	..	..	..	1	..	..	..	20	2
May	..	..	..	..	..	..	..	..	8	1
June	..	..	..	..	1	..	..	..	12	2
July	..	..	..	..	1	..	..	..	10	1
August	..	..	..	..	2	1	8	2	14	4
September	..	..	..	..	1	..	1	..	4	..
October	..	..	..	..	..	..	..	..	1	..
November	1	..	..	..	15	6	..	..	17	6
December	2	1	..	..	36	10	..	..	47	11
Year	3	1	..	..	57	17	15	2	214	50

District-wise monthly statement of Gastroenteritis (not confirmed bacteriologically) Kerala State during the year 1966
(January to December)

District	Trivandrum		Quilon		Alleppey		Kottayam		Ernakulam	
Month	Attack	Death	Attack	Death	Attack	Death	Attack	Death	Attack	Death
1	2	3	4	5	6	7	8	9	10	11
January	37	..	..	..	38	4	29	2	..	..
February	2	..	..	..	100	13	126	9	1	1
March	38	..	..	..	31	..	163	..	22	..
April	91	4	..	..	..	..	139	2	28	..
May	98	..	..	..	..	..	95	2	35	..
June	59	..	..	..	..	..	76	..	54	..
July	68	3	..	..	..	..	64	1	63	..
August	14	..	..	..	..	..	84	..	14	1
September	..	..	..	..	..	..	37	..	..	..
October	1	1	..	..	1	1	78	4	..	..
November	..	..	..	..	..	..	43	2	..	..
December	1	1	3	1	..	..	20	3	11	2
Year	409	9	3	170	18	974	25	228	5	5

District-wise monthly statement of gastroenteritis (not confirmed bacteriologically) Kerala State during the year 1966-
(January to December)---(cont.)

District	Trichur		Palghat		Kozhikode		Cannanore		State	
Month	Attack	Death	Attack	Death	Attack	Death	Attack	Death	Attack	Death
	12	13	14	15	16	17	18	19	20	21
January	42	..	..	..	18	1	1	1	165	8
February	87	..	7	5	..	..	98	9	421	37
March	11	..	105	7	26	4	195	7	591	18
April	6	..	112	2	72	7	58	5	506	20
May	1	..	27	..	18	..	47	3	321	6
June	..	..	65	..	24	1	26	7	304	8
July	..	..	46	..	21	1	24	2	286	7
August	..	..	23	..	17	..	32	4	185	6
September	..	..	13	..	8	2	63	4	141	6
October	..	..	7	..	..	..	3	3	89	8
November	..	..	16	..	13	5	1	1	76	9
December	8	..	5	..	218	7	..	..	263	13
Year	155	..	426	14	435	28	548	46	3348	146

Preventive measures :

As a measure to prevent the recurrence of the attack, a mass inoculation campaign was organised. This campaign was in operation for a period from January 1966 to the end of March 1967. 300 cholera Inspectors (Inoculators) and 30 Supervisors were posted for the purpose in the State. They have completed the most vulnerable coastal area

ations
state-
"

Statement showing the Inoculations done during the year 1966 by the special staff during Mass Inoculation Campaign

Month/District	Number of inoculations done in									
	Trivandrum	Quilon	Alleppey	Kottayam	Emakulam	Trichur	Palghat	Kozhikode	Cannanore	State
1	2	3	4	5	6	7	8	9	10	11
January	108	14475	54386	399	2291	3531	..	2034	894	89263
February	14	31940	81596	30299	29696	15163	7510	21112	10695	228025
March	8866	51789	120067	53491	29357	24026	26221	50850	182389	547056
April	39041	34445	66908	41117	18903	11387	14060	26584	30693	233138
May	40470	38897	47711	25591	27195	12079	18772	29058	23948	264621
June	39486	17644	21154	21807	20310	12589	14432	26393	25309	197084
July	42219	11883	35691	21320	101786	19838	8677	19993	24591	285668
August	35768	24077	55625	23040	942	15456	3084	11947	83142	205081
September	25582	31979	49490	20121	6415	16966	1933	23348	30574	206608
October	29901	53515	45239	25132	8927	17522	5654	29186	43065	259144
November	27721	25298	49973	22213	15243	18990	5141	12662	30210	202346
December	20016	14757	30951	23124	12311	4381	5077	96014	23212	229943
Total	309195	350694	663891	307654	273326	167848	110571	350281	458722	2997182

Statement showing the infection rate, mortality rate and case fatality ratio in respect of confirmed Cholera cases are given below

(a) Infection Rate :

<i>District</i>		<i>Population</i>	<i>No. of cases</i>	<i>Infection rate per 1000 of Population</i>
(1)		(2)	(3)	(4)
Trivandrum	..	19,62,306	37	0.0189
Quilon	..	21,83,558	6	0.0027
Alleppey	..	20,37,356	30	0.0147
Kottayam	..	19,49,200	55	0.0282
Ernakulam	..	20,92,092	11	0.00326
Trichur	..	18,44,571	3	0.00162
Palghat	..	19,98,791	..	0.0000
Kozhikode	..	29,43,901	57	0.0194
Cannanore	..	20,02,533	15	0.0075
State	..	1,90,14,308	214	0.0113

(b) Mortality Rate :

<i>District</i>		<i>Population</i>	<i>No. of deaths</i>	<i>Mortality rate per 1000 of population</i>
(1)		(2)	(3)	(4)
Trivandrum	..	19,62,306	2	0.00102
Quilon	..	21,83,558	..	0.0000
Alleppey	..	20,37,356	6	0.0029
Kottayam	..	19,49,200	20	0.0103
Ernakulam	..	20,92,092	2	0.0009
Trichur	..	18,44,571	1	0.0005
Palghat	..	19,98,791	..	0.0000
Kozhikode	..	29,43,901	17	0.0038
Cannanore	..	20,02,533	2	0.0009
State	..	1,90,14,308	50	

(c) Case Fatality Rate :

<i>District</i>	<i>Cases</i>	<i>Deaths</i>	<i>Case fatality rate (per cent)</i>
(1)	(2)	(3)	(4)
Trivandrum ..	37	2	5.41
Quilon ..	6	..	..
Alleppey ..	30	6	20.00
Kottayam ..	55	20	36.36
Ernakulam ..	11	2	18.18
Trichur ..	3	1	33.33
Palghat ..	..	..	..
Kozhikode ..	57	17	29.82
Cannanore ..	15	2	13.33
State ..	214	50	23.36

B. SMALLPOX

There were 631 smallpox cases with 221 deaths. Even though there was no epidemic of smallpox during the year, a little increase was exhibited in the Districts of Kozhikode and Cannanore. Cannanore District reported more attacks during February, March, April, and May and Kozhikode District reported more attacks in June. Palghat District had a slight increase during the end of the year. In December 1966 and subsequent months Palghat reported more cases than the rest of the period. Trichur reported sporadic cases and Alleppey reported a solitary case. All other Districts were free from Smallpox during the year.

The distribution of attacks and deaths in different localities is given below :—

District	Taluk	Block	P. H. Centre	Attack	Death
1	2	3	4	5	6
Alleppey	Chengannur	Kulanada	Vellana	1	1
			District total	1	1
Trichur	Mukundapuram Chowghat	Chalakudi Kodalara Chowghat Mullasveri	Elinjipara	7	1
			Mattathoor	1	1
			Kadapuram	2	2
			Mullasveri	1	.
			District total	11	4
Palghat	Palghat Perinthalmanna Ottappalam Ponnani	Palghat Municipality Mannarghat Mankada Pattambi Ponnani	Alathur	2	1
			Mankada	46	7
			Koppom	3	
			Thrikanna- puram	8 7	5 3
			District total	66	16
Kozhikode	Badagara	Thooneri Kunnummel	Valayam	1	0
			Kuttiadi	3	2
	Quilandy	Melady Balussery	Melady	15	5
			Balussery	4	2
	Kozhikode	Kozhikode Corporation		112 1	46 1
	Tirur	Kozhikode	Nadakkavu	8	3
		Kunnamangalam	Mukkom	17	8
		Thirurangadi	Neduzha	14	7
		Tanur	Valayannur	23	4
		Kuttiapuram	Kuttiapuram	4	2
		Tirur	Vettom	2	..
		Vengara	Vengara		
	District total	204	80		
	Cannanore	Kasargode	Manjeswar	Kumbha	34	9
Hosdurg		Kasargode Kanhanged Nileswar	Muliyar Periya Nileswar	85	30 III

District	Taluk	Block	P.H. Centre	Attack	Death
1	2	3	4	5	6
Cannanore	Taliparamba	Irikkur	Mayyil	4	2
		Taliparamba	Pappinissery	20	6
	Cannanore	Cannanore	Azhikode	1	1
		Edakad	Irivveri	32	14
	Tellicherry	Payyannur	Payangadi	3	2
		Tellicherry		4	3
		Municipality			
		Kuthuparamba	Iritty	5	2
		Tellicherry	Panoor	80	19
			Pinarai	9	6
		District total	349	120	
		State total	631	221	

Statement showing the attack and death in the age groups below one year, between 1 and 10 years and above 10 years

District	Age groups							
	Below 1 year		1-10 years		Above 10 years		Total	
	Attack	Death	Attack	Death	Attack	Death	Attack	Death
Triyandrum	..	..	..	..	..	..	..	..
Quilon	..	..	..	..	..	..	..	..
Alleppey	..	..	..	..	1	1	1	1
Kottayam	..	..	..	..	..	..	..	..
Ernakulam	..	..	..	..	..	..	..	..
Trichur	..	..	3	1	8	3	11	4
Palghat	2	1	20	8	44	7	66	16
Kozhikode	24	17	64	36	116	27	204	80
Cannanore	18	12	99	40	232	68	349	120
State total	44	30	186	85	401	106	631	221

District-wise statement showing the attack and death for the years 1965-66

		1965		1966	
		<i>Attack</i>	<i>Death</i>	<i>Attack</i>	<i>Death</i>
Trivandrum	..	3	..	..	..
Quilon	..	..	..	..	..
Alleppey	..	..	..	1	1
Kottayam	..	1	..	..	..
Ernakulam	..	..	..	..	..
Trichur	..	17	6	11	4
Palghat	..	8	2	66	16
Kozhikode	..	79	39	204	80
Cannanore	..	36	11	349	120
State total	..	<u>144</u>	<u>58</u>	<u>631</u>	<u>221</u>

Monthly statement showing attacks and deaths during 1965-66

<i>Month</i>		1965		1966	
		<i>Attack</i>	<i>Death</i>	<i>Attack</i>	<i>Death</i>
January	..	18	5	50	18
February	..	34	17	104	28
March	..	15	8	74	26
April	..	11	4	51	15
May	..	8	7	79	23
June	..	20	5	101	50
July	..	10	8	56	19
August	..	8	1	35	17
September	..	2	..	20	10
October	..	..	..	11	6
November	..	3	..	13	3
December	..	15	3	37	6
Year	..	<u>144</u>	<u>58</u>	<u>631</u>	<u>221</u>

National Smallpox Eradication Programme

The attack phase of National smallpox eradication programme which was launched on 1st April 1962 was completed by the end of 1966. After covering the entire State by mass vaccination campaign the staff strength was reduced accordingly. There was only a skeleton organisation in position during 1966-67. Mopping up operations which is also an integral part of the attack phase was carried out with the staff with a view to achieve adequate vaccination coverage.

There was an increasing trend in the incidence of smallpox in northern districts and also focal out-breaks. Therefore the staff was also mobilised to combat out-breaks of smallpox. The regular health staff was also utilised for vaccination operations. An all out effort was made to reduce unprotected cases pendency and build up herd immunity. Details of staff and vaccinations performed are given below:

Headquarters—

1. Assistant Director of Health Services	..	1
2. U.D. Clerk	..	1
3. L.D. Typist	..	1
4. Peon	..	1
5. Health Inspectors	..	2
6. Driver	..	1
7. Van Cleaner	..	1

Unit Organisation—

1. Assistant Supervising Officers	..	3
2. Drivers	..	3
3. Enumerators-cum-Vaccinators	..	9

Achievements during the year

No. of Primary vaccinations performed	..	76,565
No. of re-vaccinations performed	..	9,54,154
Total		.. 10,30,719

The pattern of Central assistance for the programme continued to be the same and the total expenditure for the year was Rs. 1,95,747.

C. TUBERCULOSIS CONTROL

Dr. K. Kurian continued as Assistant Director of Health Services (T.B.) during the period. He is the State T.B. Control Officer and is inspecting T.B. Clinics and T.B. Hospitals periodically with a view to give technical assistance and to guide the institutions for proper implementation of the National T.B. Control Programme. He was also the Director, Tuberculosis Demonstration and Training Centre, Trivandrum.

The three T.B. Hospitals in the State for the treatment of T.B. patients were—

1. T.B. Hospital, Pulayanarcottah, Trivandrum.
2. K.V. Sanatorium, Mulankunnathukavu, Trichur District.
3. T.B. Sanatorium, Pariyaram, Cannanore District.

The statement of patients treated in the above three hospitals is given below :

Details	T.B. Hospital, Pulayanarcottah	K.V. Sanatorium Mulankunnathu- kavu	T.B. Sanatorium, Pariyaram	Total
1	2	3	4	5
No. of Beds ..	508	296	376	1180
No. of in-patients treated ..	1543	1489	1281	4313
Do. cured ..	..	..	7	7
Do. relieved ..	939	1063	893	2895
Do. discharged otherwise ..	31	119	15	165
Do. died ..	99	62	62	223
Do. remaining at the end of the year ..	474	245	304	1023
No. of out-patients treated ..	5000	96581	18047	119628

(The above figures are included in the consolidated statement in Chapter II)

The 18 T.B. Clinics continued to function during the year. Two T.B. Clinics at Ponnani and Manjeri were opened during the year.

They are—

- (1) T.B. Demonstration and Training Centre, Trivandrum.
- (2) T.B. Clinic, Quilon.
- (3) „ Kottarakkara.
- (4) „ Karunagappally.
- (5) „ Kozhencherry.
- (6) „ Alleppey.
- (7) „ Karuvatta.
- (8) „ Kottayam.
- (9) „ Vaikom.
- (10) „ Palluruthy.
- (11) „ Muvattupuzha.
- (12) „ Fort Cochin.
- (13) „ Alwaye.
- (14) „ Trichur.
- (15) „ Palghat.
- (16) „ Kozhikode.
- (17) „ Cannanore.
- (18) „ Kasargode.
- (19) „ Ponnani.
- (20) „ Manjeri.

The total number of beds available in all the institutions (T.B. Hospitals, T.B. Clinics, T.B. Seal Wards and other hospitals) is 1886. The name of institutions to which beds are attached are given below:

T.B. Hospitals—

1. T.B. Hospital, Pulayanarkotta, Trivandrum ..	508
2. K.V. Sanatorium, Mulankunnathukavu, Trichur ..	296
3. T.B. Sanatorium, Pariyaram ..	376
Total ..	<u>1180</u>

T.B. Clinics—

1. T.B. Demonstration and Training Centre, Trivandrum ..	12
2. T.B. Clinic, Kottarakara ..	24
3. T.B. Clinic, Kozhencherry ..	12
4. T.B. Clinic, Karunagappally ..	50
5. T.B. Clinic, Palluruthy ..	40
Total ..	<u>138</u>

Beds attached to other institutions—

1.	S.H. Centre, Neyyattinkara	..	12
2.	Taluk Head Quarters Hospital, Nedumangad	.	12
3.	Government Hospital, Chirayinkil	..	24
4.	District Hospital, Alleppey	.	64
5.	Government Hospital, Shertallai	..	12
6.	„ Mavelikara	.	12
7.	„ Chengannur	..	12
8.	Medical College Hospital, Kottayam	.	48
9.	Government Hospital, Changanassery	..	12
10.	„ Palai	.	12
11.	„ Vaikom	.	12
12.	„ Kanjirappally	..	12
13.	„ Kuravilangad	.	8
14.	„ Muvattupuzha	..	12
15.	„ Parur	..	12
16.	„ Palluruthy	..	12
17.	„ Alwaye	..	12
18.	„ Ayyampally	.	12
19.	District Hospital, Trichur	.	22
20.	Government Hospital, Irinjalakuda	.	12
21.	„ Chalakudy	..	12
22.	District Hospit. l, Palghat	..	54
23.	Government Hospital, Ottapalam	..	12
24.	„ Chittur	..	12
25.	„ Mannarghat	..	12
26.	„ Badagara	..	12
27.	„ Quilandy	..	12
28.	„ Tirur	..	12
29.	„ Tirurangadi	..	12
30.	District Hospital, Cannanore	..	24
31.	Medical College, Hospital, Calicut	.	48

Total

568

The five District T.B. Centres continued to function. The two other District T.B. Centres at Palluruthy, Trichur were supplied with equipments from Government of India.

The administrative control of the District T.B. Officer was vested with the District Medical Officers of Health of the respective districts as in the previous year. The T.B. Demonstration and Training Centre, Trivandrum continued to give training to para medical personnel such as Health Visitors, Laboratory Technician etc. The training of T.B. Health Visitors is done as a routine. The above Demonstration Centre is in a position to guide and supervise the various clinics of the State.

Two more B.C.G. Teams have been started at Trichur and Palluruthy in addition to five B.C.G. Teams. This seven B.C.G. Teams at Trivandrum, Quilon, Alleppey, Ernakulam, Trichur, Palghat and Cannanore and seven Static B.C.G. Centres at S.A.T. Hospital, Trivandrum, Indo-Norwegian Health Centre, Neendakara, T.B. Clinic, Kottarakara, Medical College Hospital, Kottayam, M.C.H. Unit, Arpookara, Kottayam, Station Health Organisation, Naval Base, Cochin and Medical College Hospital, Calicut functioned during the year. The B.C.G. Vaccinations done during the year 1966 is given below:—

B.C.G. Teams	..	664615
Static Units	..	10802
		<hr/>
Total	..	675417
		<hr/>

D. Leprosy control

Dr. K. N. Bhattathiripad continued as Assistant Director of Health Services (Leprosy). He was the Superintendent of Leprosy Sanatorium, Noornad also. The two hospitals for treatment of leprosy patients are:

1. Leprosy Sanatorium, Noornad, Alleppey District
2. Leprosy Hospital, Koratty, Trichur District

One hundred and fifty-four S.E.T. Centres including those of private agencies functioned during the year. During the period of 1966-67, a population of 2949531 was covered and 2062297 persons were examined and this examination helped to detect 1606 L and 9135 N cases. 1538 L and 9050 N cases were registered. In addition 9772 leprosy patients were treated as extra zonal patients. 55422 contacts were kept under observation for any possible development of lesions. The Leprosy Health Visitors visited 296 schools with 150806 children and detected 3 L and 232 N cases.

. As per G.O. 767/64/HLD dated 22nd October 1964, 48 able-bodied leprosy patients were rehabilitated at the Rehabilitation Centre, Pallikal during 1966-67.

The building for Re-constructive Surgery Unit attached to Leprosy Sanatorium, Noornad was completed during the year.

No candidates were taken for training as para-medical workers during the year 1966-67.

Dr. Guptan Namboodiripad, Civil Surgeon, II Grade, was in charge of the Leprosy Training Centre, Mararikulam.

Leprosy Welfare Committees were formed in most of the S.E.T. Centres.

Annual consolidated report of S.E.T. Centres for 1966-67

No. of S.E.T. Centres functioning on 31-3-1967	..	154
Population surveyed up to 31-3-1967	..	2949531
No. of persons examined	.	2062297
Cases detected as L	..	1606
Cases detected as N	..	9135
Total cases detected	..	10741
Cases registered for treatment	.	10588
Healthy contacts examined	.	55422
Healthy contacts who developed symptoms	.	..
Cases registered for treatment as extra-zonal patients.	..	9772
No. of schools visited	..	296
No. of children examined	..	150806
No. of cases detected	..	235

V. D. Control

The V.D. Clinics established prior to Plan period and under Plan schemes continued. They were attached to the following institutions:

1. Medical College Hospital, Trivandrum
2. District Hospital, Trivandrum
3. " " Children's Hospital, Trivandrum
4. " " "
5. " " "
6. " " " tayar
7. " " "
8. " " "
9. District Hospital, Palghat
10. Medical College Hospital, Kozhikode
11. District Hospital, Cannanore

Preventive measures.—

Primary vaccinations	..	505582
Re-vaccinations	..	1437202
Anti-cholera inoculations	..	2997182
Anti-typhoid inoculations	..	21999

Rural Sanitation.—

No. of bore-hole latrines constructed	..	2566
E.S.P. type latrines constructed	..	13490
Other types including pit latrines, septic tanks, etc.	..	5163
No. of urinals constructed	..	3394
No. of wells, tank wells sank	..	1564

Water supply.—

No. of water supplies disinfected	..	71750
Do. repaired	..	859
Do. remodelled	..	220
Do. constructed	..	442

Inspections.—

No. of schools inspected	..	4464
No. of markets inspected	..	2884
No. of slaughter houses inspected	..	1622
No. of hotels, tea-shops and other shops inspected	..	26317
No. of cinema houses inspected	..	751
No. of births detected by Health Staff as not registered in rural areas	..	70762
No. of deaths detected by Health Staff as not registered in rural areas	..	15367

CHAPTER V

MATERNITY AND CHILD HEALTH

The District level supervision on the work of the Midwives of the Department was made by the District Public Health Nurses as usual.

During 1966, Refresher Course was conducted at Women and Children Hospital, Thycad, Women and Children's Hospital, Mattancherry, General Hospital, Calicut. 176 Midwives in service were given refresher training during 1966. 144 Departmental Midwives and 32 Midwives from Panchayat.

The section continued to attend to all matters relating to the assistance of World Health Organisation and UNICEF i.e. implementation and running of the "Kerala Project 147" and Paediatric Training and service project.

The activities of Midwives during the year is given in Table III annexed.

Milk Feeding Programme—UNICEF Aided Milk Distribution Scheme

The UNICEF assisted M.C.H. Milk Feeding Programme continued during the year. There were 1320 Feeding Centres during the year as against 1209 Centres during the previous year. 5,40,325 lb. of skim milk powder was consumed during the year. 6612 mothers and 46464 (total 53076) were fed daily with the milk powder. The per capita ratio allowed was 1 oz. (30 grams) for a child and 1½ oz. (40 grams) for a mother.

An expenditure of Rs. 1,02,514 was incurred for the implementation of the programme.

The Director of Health Services continued to be the State Liaison Officer. He was assisted by the Assistant Director of Health Services (MCH) and the Assistant Convener of Milk Canteen. The District Family Planning Medical Officers were primarily responsible for the proper working of milk feeding in their respective districts.

CHAPTER VI

FAMILY PLANNING

The year 1966-67 witnessed many important and significant changes in the Family Planning Wing of the Department. K. gamma continued to be the Dy. Director of He K. n. M.C.H.). Dr. K. G. Sarada relinquished ic

Varghese assumed charge as Assistant Director of Health Services (F.P.). A new post of Medical Officer in-charge of the I.U.C.D. Programme was filled up by appointing Dr. K. Sathyavathi. The State Bureau was strengthened by with the additional posts as shown below in consonance with the recommendation of the Mukherjee Committee.

Administrative Division.—

Administrative Assistant	..	1
Senior Accountant	..	1
Accountant (Jr. Superintendent)	..	1
U. D. Clerk	..	1
L. D. Clerk	..	1
L. D. Typist	..	1
Cleaner	..	1
Peons	..	3
Driver	..	1

Stores Division.—

Stores Officer	..	1
U. D. Accountant	..	1
Packer	..	1

Education and Information Division.—

Editor	..	1
L. D. Clerk	..	1
Artist-cum-Photographer	..	1
Steno-typist	..	1

Planning and Field Operation Division.—

Medical Officer in-charge of I.U.C.D. Programme	..	1
Statistical Assistant	..	1
L. D. Clerk	..	1

The Chief Health Education Officer was deputed in June, 1966 for one year course in Diploma in Health Education at the All India Institute of Hygiene and Public Health, Calcutta.

The Statistical Assistant was also deputed to New Delhi to attend an Orientation training at the Family Planning Training Centre.

Staff pattern and Administrative set up of the 9 District Bureaux remained unchanged in the year under review. Proposals for strengthening these 9 Bureaux have been sent to Government and sanction is expected shortly.

The Mobile Sterilisation Unit attached to each of the District Bureau continued to function this year also.

The I.U.C.D. Programme too was carried out by the sterilisation units.

The District Extension Educators were deputed to the F.P. Training Centre, Trivandrum for training.

The 22 Urban F.P. Centres shown below attached to 22 Government Hospitals functioned this year also.

1. Government Hospital, Perurkada (This was transferred to the control of the Lions Club on 1st March 1967)
2. Fort Hospital, Trivandrum.
3. Medical College Hospital, Trivandrum.
4. District Hospital, Quilon.
5. Victoria Hospital, Quilon.
6. Government Hospital, Kayamkulam.
7. Government Hospital, Changanacherry.
8. Medical College Hospital, Kottayam.
9. W. & C. Hospital, Mattancherry.
10. Government Hospital, Fort Cochin.
11. District Hospital, Alleppey.
12. W. & C. Hospital, Alleppey.
13. District Hospital, Ernakulam.
14. District Hospital, Trichur.
15. District Hospital, Palghat.
16. Medical College Hospital, Calicut.
17. General Hospital, Kozhikode.
18. Government Hospital, Badagara.
19. Government Hospital, Tellicherry.
20. Government Hospital, Palluruthy.
21. District Hospital, Cannanore.
22. W. & C. Hospital, Trivandrum.

Each centre consists of the following staff.—

Assistant Surgeon	.	2	(1 male and 1 female)
Extension Educator	..	2	"
Welfare Workers	..	2	"
Store-keeper	..	1	"
Attender (Peon)	..	1	"

The number of rural F. P. Centres increased to 144 from 143 in the previous year. Each Block, 386 posts of 513 sub-centres and 1000 population and one P.H. Centre (one P.H. Centre for every C.D. Block).

Each sub centre is staffed by one Aux. Nurse Midwife. For the supervision of the A.N. Midwives 160 posts of Health Visitors/P.H. Nurses were created. It is also proposed to increase the number of A.N. Midwives and Health Assistants to 1000 population and one P.H. Centre. The Government is also considering the maintenance of the number of Midwives is also under consideration of Government and orders are awaited.

The Voluntary Organisations and Local Bodies mentioned below have subscribed to the successful implementation of the F.P. Programme in the State by opening F. P. Centres and Clinics.

1. B.S.S. Family Planning Clinic, Konni.
2. Sree Narayana Medical Mission, Warkala.
3. Swayamprakash Ashramam F.P. Clinic, Kulathur.
4. Skippo Committee F.P. Clinic, Ottapalam.
5. M. Ct. M. Chidambaram Chettiar Memorial Hospital F.P. Clinic, Rayonpuram.
6. F. P. Association of India F.P. Clinic, Ernakulam.
7. Medical Relief Society, Chottanikkara.
8. Vanitha Samajam F.P. Clinic, Kasthanur, Karoor.
9. Do. Puthencruz.
10. Do. Kalamasserry.
11. Sreevaraham Vanitha Samithi F.P. Clinic, Fort, Trivandrum.
12. Quilon Ladies Club F.P. Clinic, Quilon.
13. B.S.S. F.P. Clinic, Munnammoodu, Vattiyookavu.
14. N.S.S. Medical Mission F.P. Clinic, Pattalam.
15. S.N.V. Women's Association F.P. Clinic, Trivandrum.
16. Lions Club F.P. Clinic, Kaudiar, Trivandrum.
17. Rotary Club F.P. Clinic, Trivandrum.
18. I.M.A. F.P. Clinic, Kottayam.
19. Trivandrum Corporation F.P. Clinic, Valiathura.
20. Ernakulam Municipality F.P. Clinic, Ernakulam.
21. Alleppey Municipality F.P. Clinic, Alleppey.
22. Quilon Municipality F.P. Clinic, Quilon.
23. Kottayam Municipality F.P. Clinic, Kottayam.

A Committee consisting of the Director and Deputy Directors of Health Services and the Regional Director, F.P., Bangalore has been constituted this year for recommending grant to the Voluntary Organisations after scrutiny. Grants to these F.P. Clinics were paid by the Government of India for 1966-67.

With a view to taking to every couple, the message of family planning, the education and information activities were intensified. The public could be made family planning conscious, as a result of various measures adopted. Seminars were conducted in all the districts with the co-operation of Voluntary Organisations and Panchayats. Advertisements in newspapers and other publications were arranged. Matchbox labels and ration cards were inscribed on with the message "A SMALL FAMILY IS A HAPPY FAMILY" () which focussed the attention of the public. In important places of public gathering like Railway Stations, Bus-stops, etc., hoardings were put up. The publication of the Bulletin started in 1964 continued and 2 books were issued this year. Folders explaining various features of I.U.C.D., insertion were distributed. Kathaprasangams and Dramas

were composed and conducted in all the districts by various troupes. Produced and purchased models, flash cards and films for distribution in the districts. Three films in local language and settings were produced and screened. Cinema slides were used for advertisement.

At festivals and fairs, from September 1966 to December 1966 to the contrary to the trend of this period, social and publicity fields. Tremendous achievements both in I.U.C.D. insertions and sterilisation operations were recorded. Awards and prizes were given to the best F. P. Workers in State, District, Block and Panchayat levels.

In order to facilitate convenient functioning of F. P. sub-centres, 1. Till the end of March 1967, 163 is proposed and another 163 is proposed and estimate for 288 approved. Administrative sanction for 265 buildings was accorded during the year. An expenditure of Rs. 10,88,540 incurred by the P.W.D. towards this item.

The entire Family Planning Programme was re-organised with a target fixed. But later it was proved that in the urge of turning out tremendous work the target fixed was higher, very ambitious and unattainable. This fact necessitated a more realistic and attainable target for the next year.

The achievements for the year both in I.U.C.D. and Sterilisation is shown below:—

	Target	Achievement
Sterilisation	166,950	40,274
I.U.C.D.	84,382	40,760

The achievements comes to 24.7 and 47.7 per cent of the target of Sterilisation and I.U.C.D. insertions. The cumulative achievement since the inception of the programme in the State is 75,572 I.U.C.D. and 155,426 sterilisation which comes to 11 and 3.89 per cent of the population.

A statement showing the activities during various periods are given below:—

<i>Year</i>	<i>No. of vasectomy done</i>	<i>No. of PPS. done</i>	<i>Total</i>	<i>No. of IUCD.</i>
1957	521	158	679	..
1958	1653	1507	3160	..
1959	4132	2236	6368	..
1960	3079	1953	5032	..
1961	3578	2939	6517	..
1962	4182	2916	7098	..
1963	10396	2830	13226	..
1964	17938	3966	21904	..
1965	36102	6532	42634	23062
1966	33252	6147	39398	43517

A brief study of the demographic aspect of persons sterilised and fitted with I.U.C.D.

	<i>No. of sterilised persons</i>	<i>No. of IUCD insertions</i>
Classified by religion—		
Hindus	.. 571	142
Christians	.. 191	129
Muslims	. 53	32
Total	.. 815	303
Classified by income—		
Below Rs. 100 p.m.	.. 651	212
Between 100 and 800	.. 161	91
Above 800	.. 3	..
Total	.. 815	303
Classified by education—		
Illiterate	.. 231	175
Below primary	.. 259	71
Above primary and below matric	.. 268	34
Above matric	.. 52	25
Not recorded	.. 5	..
Total	.. 815	303

The distribution of figures of I.U.C.D. insertions among Hindus, Christians and Muslims is more even than the figures of sterilisation. The acceptability of I.U.C.D. is more than that of the sterilisation among Christians and Muslims. The sterilisation in the lower income group is 80 per cent and the middle it is 19.6 whereas in the respective groups, I.U.C.D. is 70 and 30. The popularity of sterilisation is more in the primary-below-matric group but the popularity of I.U.C.D. is in the illiterate group.

It is gratifying to note that a steady progress is made in the sterilisation and I.U.C.D. insertions every year. In addition to this, distribution of conventional contraceptives, of which no mention is made in the report is also carried out in large numbers.

expected during the years to come.

In addition to the Family Planning Training Centre at Trivandrum one at Kozhikode started functioning this year. In both these centres, training was conducted to various medical and para-medical Family Planning Workers viz., Doctors, Urban and District Extension Educators, Block Extension Educators, Health Visitors, Auxiliary Nurse Midwives, Health Assistants, etc.

Family Planning Training Centre, Trivandrum

Dr. Chitra Gopalan was the Principal of the Training Centre during the period.

Training activities of the centre (from the starting of institution in January 1966)

<i>Category of personnel trained</i>	<i>Duration of training</i>	<i>No. of trainees</i>	<i>Remarks</i>
1. District Family Planning Medical Officers	1 week	9	Seminar
2. Medical Officers	2 weeks	175	Orientation training
3. Medical Officers	1 week	179	do.
4. Block Development Officer	1 week	102	do.
5. District Extension Educators/Urban Extension Educators and Block Extension Educators	4 days	25	Short-term Trainer's Course
6. Civil Surgeon	2 days	4	

<i>Category of personnel trained</i>	<i>Duration of training</i>	<i>Nr. of trainees</i>	<i>Remarks</i>
7. District Extension Educators and Urban Extension Educators	2 weeks	15	Orientation training
8. Student Nurses from Sri Ramakrishna Mission Hospital	4 days	14	
9. Public Health Nurse Students	7 days	14	
10. Social Workers	1 week	19	

A vasectomy clinic was established in the training centre to provide practical experience in vasectomy to the trainees and service to the public. 423 vasectomy operations were performed in the centre from March 1966. A few loop insertions were also done. Advice and follow up services were given to the vasectomised persons and I.U.C.D. accepters. The month-wise performance of vasectomy in the clinic is as follows :—

<i>Month</i>	<i>Nr. of vasectomies performed</i>
March 1966	19
April 1966	14
May 1966	7
June 1966	17
July 1966	19
August 1966	20
September 1966	17
October 1966	5
November 1966	7
December 1966	48
January 1967	43
February 1967	75
March 1967	132
..	423

(The figures are included in the statement given at the end of chapter.)

Dr. Chitra Gopalan, Principal of the Training Centre participated in the Central Training Workshop on Family Planning in March and August 1966 and in January 1967. Staff of the Centre participated in the Family Planning Seminars and were deputed to the Institute of Rural Health and Family Planning, Gandhigram for 4 days for studying the Family Planning services and training programmes there.

Visitors.—Sri B. S. Murthy, Deputy Minister of Health and Family Planning, Government of India, Senior Officers of Family Planning

Division of Ford Foundation at New Delhi, dignatories from Population Council, Dr. G. Krishna Rao, the Regional Director, Dr. Hariharan, Assistant Director of Family Planning, Madras, Lt. Col. H. L. Raina, Director of Central Family Planning Institute, New Delhi and Dr. Soundaram Ramachandran, Director, Institute of Rural Health and Family Planning, Gandhigram visited the Institute. Members of State Family Planning Advisory Board have paid visits to the Centre and participated in the training programme.

Family Planning Training Centre, Calicut

The District Medical Officer of Health, Calicut, was in charge of the Training Centre. The training of Auxiliary-Nurse-Midwives in Family Planning commenced from 18th April 1966. The duration of the course for the first batch of 20 students was one month and thereafter only courses of one week's duration was given. 458 students were given training in 1966-67 in 18 batches.

Foundation stone for the permanent building of the Training Centre was laid by Dr. Susheela Nayyar, Union Minister for Health and Family Planning on 15th January 1967 at Florican Mills, Malaparamba, Calicut.

District, month and sex-wise break-up of figures of sterilisation operations in 1966-67

	Trivandrum		Quilon	Alleppey	Kottayam	Ernakulam	Trichur	Palghat	Kozhikode	Cannanore	Total
I	2	3	4	5	6	7	8	9	10	11	12
April 1966	Male	204	22	34	300	143	110	93	208	36	1236
	Female	134	98	23	47	43	34	21	21	36	419
May "	Male	244	335	100	112	138	191	130	215	215	1597
	Female	128	129	43	27	73	42	25	53	31	487
June "	Male	441	254	89	244	206	189	147	218	113	2055
	Female	189	153	1	62	35	61	21	59	37	529
July "	Male	479	431	246	126	331	349	359	309	246	2761
	Female	156	91	60	24	66	62	12	56	12	510
August "	Male	336	345	387	100	161	379	507	203	105	2338
	Female	168	88	31	22	52	45	16	60	48	506
September "	Male	296	642	212	296	267	161	104	212	134	2113
	Female	122	102	38	68	58	33	25	38	45	518
October "	Male	208	1192	360	460	334	347	161	203	131	2539
	Female	147	130	66	52	64	60	23	45	61	606
November "	Male	323	243	352	302	219	397	186	268	286	2975
	Female	97	64	23	51	59	57	25	32	77	523
December "	Male	989	408	727	427	1078	1075	1105	787	968	8348
	Female	260	64	63	40	87	68	33	32	71	784
January 1967	Male	373	317	252	205	233	210	258	217	124	2094
	Female	236	62	62	55	80	53	32	30	70	716
February "	Male	424	180	212	278	216	215	124	216	347	2367
	Female	246	64	39	52	93	63	21	34	59	736
March "	Male	503	108	447	294	277	299	196	226	135	2631
	Female	283	60	39	71	79	75	34	45	87	866
Total		6986	5782	3906	3714	4392	4575	3658	3787	3474	40274

Month and district-wise break-up of figures of I.U.C.D. insertions during 1966-67

	1	2	3	4	5	6	7	8	9	10	11
		Trivandrum	Quilon	Alleppey	Kottayam	Ernakulam	Trichur	Palghat	Kozhikode	Cannanore	Total
April 1966	..	233	255	223	180	289	139	192	152	36	1866
May "	..	318	587	232	103	351	220	295	149	183	2396
June "	..	281	551	497	196	565	294	193	140	106	2807
July "	..	256	492	955	57	565	390	393	203	229	3459
August "	..	223	495	548	185	309	364	458	95	186	2698
September "	..	369	445	387	348	448	186	394	217	189	2970
October "	..	193	1556	789	435	424	355	398	144	150	3383
November "	..	265	575	483	285	312	548	379	137	188	3042
December "	..	1294	525	1375	426	1548	902	1228	334	483	9146
January 1967	..	355	471	643	312	311	214	293	110	94	2587
February "	..	367	330	646	214	416	339	376	188	152	3285
March "	..	403	422	434	376	383	231	376	221	144	3121
Total	..	4567	6704	7212	3117	5921	4182	4927	2090	2140	40760

The uneven distribution of the figures among months can be attributed to the enormous work turned out during the fortnight celebrated in December, 1966. Maximum sterilisation operation was done in Trivandrum District and the minimum in Cannanore district. Number of I.U.C.D. insertion was maximum in Alleppey District and minimum in Kozhikode District.

A survey of 815 cases of sterilisation and 303 I.U.C.D. insertions, conducted in March, 1967 revealed the following demographic characteristics. (Please see page 44)

ENT OF INDIA

Assistant Director (MCH)

Education & Information
Health Education

Assistant Editor
Artist-cum-Photographer

ists

ountant

ants

Mobile Sterilisation Unit
Assistant Surgeon
Operation Theatre Nurse
Attendant
Driver-cum-Mechanic

Stores

ation
Investigator
Evaluation

Staff.—The details of staff appointed in these Control Units are given below:—

Sl. No.	Category of staff	'E' type	'D' type	'C' type	'A' type
1	2	3	4	5	6
1	Biologist ..	1	1	1	..
2	Filaria Inspector I Gr. ..	1	1	..	1
3	Filaria Inspector II Gr. ..	2	2	1	..
4	Field Assistants ..	10	5	4	3
5	Insect Collectors ..	2	2	1	1
6	Laboratory Technicians ..	1	1	..	..
7	Maistries ..	1	1	1	1
8	L. D. Clerks ..	1	1	1	1
9	L. D. Typist ..	1	1	1	..
10	Peon ..	1	1	1	1
11	Driver ..	2	1	1	..
12	Field Workers ..	40	30	20	12
13	Cleaner ..	1	1	1	..
14	P. T. Sweeper ..	1	1	1	1

Anti-larval Measures :

The main activities in the Control Units were anti-larval work using Malariol, minor engineering work and pistia clearance. This was carried out regularly and systematically. Necessary steps were taken for the total coverage of breeding places in all the Units. A total of 749904 litres of Malariol was consumed during the year under report. The approximate dosage of oil was one litre for 40-60 sq. meters of water surface (for details see Table IX). A systematic procedure is adopted for anti-larval work strictly following the directions of the National Institute of Communicable Diseases, Delhi.

*Assessment :***A. Entomological: Larval Check up**

In order to assess the efficacy of anti-larval measures, regular larval check was carried out on the succeeding day of oiling in all the units. This will also enable to detect defective oiling and helps to take immediate remedial measures then and there. Separate staff are engaged for the purpose.

Adult Mosquito Collection:

To assess the prevalence of adult mosquitoes, and the effect of oiling, adult collections were made from human dwellings in the control area in all the units. Each Insect Collector is given 5 fixed stations and five random stations for a days work and the duration of collection being 15 mts. in each station.

In C, D and E type units all the female mosquitoes were dissected to determine the infection rate in mosquitoes and the transmission index. Details of mosquito collection and dissection are given in Table X

Parasitological Survey:

In order to determine the filarial endemicity and infection rate in the area of control annual blood survey was carried out among the children in the age group 5-15 years in selected areas and in residential institutions as per the directions of the N.I.C.D, Delhi. As far as possible the selected children were re-examined year after year and this was expected to furnish better picture of filarial situation in that community, such as the number of new infections, etc. A total of 27506 children were examined during 1966-67 and out of that 1317 were positive for filarial infection. All these positive cases were given necessary treatment also (for details see Table XI).

Filaria Clinic:

Facilities were made available in Government Hospitals, Dispensaries and such other medical institutions for blood examination for filarial infection, to detect microfilaria carriers in the community. Those positive cases were also given treatment in the respective hospitals.

Bureau of Filariasis

The Bureau of Filariasis continued at Trivandrum under the Deputy Director of Health Services (M & F) with the following technical staff:—

1. Assistant Entomologist	--	One
2. Laboratory Technician	--	1
3. Driver	--	1
4. Peon	--	

Main duties assigned to the Bureau of Filariasis were regular independent assessment of the technical aspects of the Control Units and grant-in-aid Municipalities and cross checking of blood slides received from the various N.F.C.P. Units in the State (for details see Table XII).

Filaria Control Works, Shertallai

The non-Plan Scheme continued at Shertallai and Ambalapuzha for the control of transmission of filariasis caused by *Brugian Malayi*. The pattern of staff continued as such in 1966-67 also. The main activity in this Units was manual removal of pistia—the host plant of *Medsonioides* mosquitoes, the vectors of *B. malayi* infection. A total of 1454426 sq. meters of water surface cleared of pistia during the year under report. Entomological assessment, through mosquito collection and dissection was also carried out to determine the degree of filarial infection in mosquitoes. Filaria clinic was conducted in the Government Hospital, Shertallai and 17 persons were examined in the clinic. Out of this 3 were found positive for filarial infection.

Vehicle

There are 12 vehicles allotted under National Filaria Control Programme. '2' vehicles for 'E' type unit, one each for 'D' and 'C' type units and one for the Bureau of Filariasis. Vehicles are not allotted to "A" type units.

Training of personnel

One Assistant Entomologist was given training in Filariology at the Filariasis Training Centre, Kozhikode.

General.—Anti-mosquito committees were constituted in all the places where the N.F.C.P. Units are functioning. These committees were meant to review the work periodically and make suggestions for improvements.

CHAPTER VIII

THE PUBLIC HEALTH LABORATORY, TRIVANDRUM

The Public Health Laboratory, Trivandrum, caters to the Government and private medical practitioners for their diagnostic services, viz., routine, pematology, parositology, serology, biochemistry. The rat test for pregnancy started last year as a research project was given up due to the paucity of three week old rats and the necessity for dissecting them to know the result. Male frog test continued to be done.

Serological diagnosis for syphilis, enteric fever and infective mononucleosis continued.

Rabies diagnosis by direct smear examination and animal inoculation continued.

The Chemical Examiner's section continued the work as in previous years. There was a 100 per cent in the number of prohibition sample analysed.

The State Nutrition Wing conducted clinical studies on hypoproteinaemia with fish tablets and fish poorie powder anaemia, using iron with and without protein supplementation. Dietary survey of some of the hostels in the city was also conducted and results analysed to see what nutrients were lacking in their diet to suggest corrections in the diet. Applied nutrition programme is going on in 21 blocks. Diet survey of 100 representative families from each block and its analysis was carried out to see which dietary constituent was defective. Beneficiaries from the vulnerable groups of people were selected and protective foods were given to them. Their progress was later on assessed. In all these blocks, nutrition education was carried out by means of lectures, seminars, film shows and group discussions in which the public took active interest. A Junior Statistical Officer, Food Analyst and Field Assistants were appointed during the year. Two Health Inspectors were deputed for one month's training in Applied Nutrition to the Nutrition Training Centre, Madras.

In the sphere of manufacturing services, Antirabic vaccine production paralleled that of the previous year. Dr. K. J. Radha was sent on deputation for training in diagnosis of virus diseases and Antirabic vaccine manufacture for two weeks to Central Research Institute, Kasauli. Vaccine lymph production continued.

Bacterial vaccines, cholera vaccine, TAB vaccine, streptostaphylo vaccine and autovaccine continued to be produced. Dr. R. Sarala Devi was deputed to the Central Research Institute, Kasauli, for two weeks for the training in the manufacture, standardisation and biological tests of cholera vaccine. Sporadic cases of cholera continued throughout the first half of this year and at that time there was great demand for cholera vaccine. In the latter half of the year, the demand was less.

Manufacture of sterile solution continued this year, with the addition of normal saline, glucose and glucose saline for injection.

Antirabic treatment continued to be given to human beings. Prophylaxis against cholera, typhoid and small-pox are given here. Issue of international health certificate is also undertaken.

*The animal house of the laboratory has various . . .
mals. Due to an outbreak of salmonellosis their . . .
considerably.*

Recent journals and books are bought and added to the existing library every year.

The gas for use in the Laboratory continued to be manufactured in the Gas House attached to the Laboratory.

The carpentry section remodels old boxes to necessary specifications and packing section despatched the parcels of vaccine, etc. to various parts of the State.

Public Health Laboratory

Personnel:—The gazetted staff of the Public Health Laboratory for the year 1965-66 are as follows:—

- | | |
|--------------------------------------|---|
| 1. Director | .. Dr. V. T. Jayalakshmi, M.D.
D.C.H. continued. |
| 2. Sr. Assistant Director | .. Dr. P. K. Sankara Pillai, L.M.P.
continued to be re-employed in
the post. |
| 3. Chemical Examiner | .. Sri P. S. Narayanan Nambiar,
M.Sc. continued. |
| 4. Assistant Director | .. 1. Dr. C. Gopalan Nair, L.M.P.,
D.C.H. continued to be re-
employed in the temporary
post created for the purpose.
2. Dr. P. P. Paulose, B.A.,
M.B.B.S. continued to be
re-employed in the tempo-
rary post created for the
purpose. |
| 5. Assistant Director
(Nutrition) | .. The post is vacant. |
| 6. Sr. Medical Officer | .. Dr. R. Sarala Devi, B.Sc. M.D
continued |
| 7. Project Nutrition Officer | .. Sri R. Mukundan, M.Sc., conti-
nued. |
| 8. Sr. Scientific Officer | .. Dr. Edward Samuel B.Sc.
B.V.Sc., continued. |
| 9. Deputy Chemical Exami-
ner | .. Sri K. Krishna Pillai, M.Sc. con-
tinued. |

10. Medical Officers

- .. 1. Dr. K. J. Radha, M.B.B.S. continued.
- 2. Dr. N. Vihayakrishnan Nair, M.B.B.S. continued.
- 3. Dr. Gladis Jeevy, B.Sc., M.B.B.S. joined on 4th April 1966 F.N. and continued till 27th July 1966 when she entered on maternity leave and was later transferred.
- 4. Dr. M. S. Sarojini, M.B.B.S. was posted in the above vacancy and she took charge from 2nd August 1966 F.N.

11. Scientific Officers

- .. 1. Kumari K. Bharathy, B.Sc. continued to be re-employed.
- 2. Kumari Mary Ommen, B.A. continued.
- 3. Smt. K. Malathy, M.Sc. continued.
- 4. Smt. Premakumari, M.Sc. continued.
- 5. Smt. K. Hymavathy Amma, M.Sc. continued.

12. Veterinary Officer

13. Jr. Protozoologist

- .. The post is vacant.
- .. Sri T.G. Padmanabha Pillai, B.A. continued.

Haematology and Parasitology Section

The work in the section continued to be the same as in the previous years, viz. routine haematological and parasitological work, examination of sputum for A.P.B., eosinophils, skin clipping, etc. for Hunsens bacilli, semen analysis, male frog test for hormonal assay, etc.

A sample of blood was positive for L.E. Cells.

Since the completion of the malaria eradication programme, we had not seen a positive smear for malarial parasite in this section. This year, one smear showed malarial parasite. The same was reported to the District Medical Officer of Health and Deputy Director of Health Services. On follow up, it was shown to be a case which was imported from Nagaland.

Details of figures regarding the work done during the year is given below:—

<i>Sl. No.</i>	<i>Items of work</i>	<i>Total No.</i>	<i>Remarks</i>
1.	Faeces for microscopy	3789	
2.	Blood taken for Haemoglobin	3731	
3.	„ Total R.B.C. Count	2335	
4.	„ W.B.C. count	8721	
5.	„ Differential count	8744	
6.	„ E.S.R. „	4734	
7.	„ M.C.V. „	49	
8.	„ M.C.H. „	8	
9.	„ M.C.H.C. „	13	
10.	„ P.C.V. „	56	
11.	„ for platelet count (Forior's smear method)	27	
12.	„ Reticulocyts count	13	
13.	„ Malarial parasite	40 (positive—1)	
14.	„ Filarial parasite	30 („ 2)	
15. ^e	„ Blood picture	219	
16.	„ Bleeding time (Duke's method)	149	
17.	„ Clotting time (Lec and White)	152	
18.	„ Clot retraction time	3	
19.	„ Colour Index	4	
20.	„ L.E. Cells	10 (positive—1)	
21.	Conjunatival smear for Eosinophile	Nil	
22.	Sputum for A.F.B.	591 (positive—31)	
23.	Sputum for Eosinophile	59 („ —24)	
24.	Nasal scraping and skin clipping for H.B.	24 („ —2)	
25.	Seiminal fluid for microscopy	264	
26.	Frog test for pregnancy etc.	128 („ —45)	
27.	Inoculations against cholera and typhoid	7120	
28.	Basaphilic stippling	15	

Biochemistry Section

The type of work in the section continued to be the same as in the previous year. The volume of work has increased considerably this year, with regard to almost all investigations. Basal metabolic rate which was not done last year was started this year, once we received the special graph paper for the same. A comparative statement of the work done during the years 1966-67 and 1965-65 is shown in the table below.

<i>Specimens examined</i>	<i>Total No. for 1966-67 (2)</i>	<i>Total No. for 1965-66 (3)</i>
I. Blood		
Examinations for sugar	3533	2818
Complete glucose tolerance test	390 (1950 samples)	314 (1570 samples)
Examinations for urea	1345	1356
Cholesterol	1021	780
Thymol turbidity	747	570
Ictum index	699	555
Vandon Berghi test	699	555
Serum Bilirubin	159	42
Alkaline phosphatase	133	105
Acid phosphatase	22	24
Total protein	329	171
Albumin	216	124
Globulin	216	124
Calcium	86	46
Prothrombin time	146	38
Fragility test	15	4
Serum amylose	2	7
Cel test for kalaazaar	..	..
II. Gastric Juice		
Examination of fractional test meal	571 (5139 samples)	737 (6633 samples)
III. Urine		
Microscopical examination	7084	6020
Qualitative chemical examination	9310	7750
Estimation of sugar	1341	1094
Albumin	814	532
Urea	19	2
Diastase	1	2
Calcium	..	2
Chloride	..	4

<i>Specimens examined</i>	<i>Total No. for 1966-67</i>	<i>Total No. for 1965-66</i>
(1)	(2)	(3)
IV. Faeces		
Examinations for occult blood	111	82
Do. reactions	1	2
V. Cerebrospinal fluid and other fluids		
Chemical examination	307	288
Miscroscopical examination	289	201
Calloidal gold reaction	1	4
VI. Miscellaneous Examination		
Urca clearance test	19	20
Basal metabolic rate	35	Nil

Bacteriology Section

Figures relating to the various items of works done in the section are as given below:—

A. General Bacteriological Diagnosis

	<i>No. done</i>
1. Cultural examinations—Throat/Nasal swabs	383
Sputum	171
Cerebrospinal fluids	29
Pus	134
Urine	1160
Miscellaneous fluids like pleural fluids etc.	20
Miscellaneous samples like blood, faeces etc. from cases other than enteric	29

Fifteen throat/nasal/mouth swabs were examined for *Cory bacterium diphtheriae*. Of these, 3 were positive for *C. Diphtheriae* in culture. *Neisseria meningitidis* was isolated from one sample of C.S.F. in culture. Another showed *staphylococcus pneumonia* both in direct smear and culture.

A dead rat received from the Health Officer, Trivandrum Corporation was examined for infection with plague bacilli and was found negative.

A swab (from wound) received from the R.M.O., General Hospital, Trivandrum was examined for *Clostridium tetani* and was found positive for the organism in culture. This was further confirmed by mouse inoculation tests.

2. Other items of work done

Smears examined for gonococci	..	14—positive	6
Smear examined for A.F.B. (by concentration)	..	1	Negative
Autovaccines prepared	..	94	
Sensitivity tests done	..	360	

B. Enteric Diagnosis

Blood cultures done (fore typhoid group of organisms)	..	971	all negative
Culture of faeces for organisms other than V. Cholerae	..	16	
Culture of faeces for V. Cholera	..	235—positive	39 (all ogawa Eltor)

As revealed by results of cultural examinations done, cholera was prevalent during the former half of the year. During the greater part of the latter half, no positive cultures were recorded. The last positive case was recorded on 25-7-1966.

As revealed by results of cultural examinations done, cholera was prevalent during the former half of the year. During the greater part of the latter half, no positive cultures were recorded. The last positive case was recorded on 25-7-1966.

Mani were sent up for investigations by the A.D.M.O., Quilon on 9-7-1966. On cultural examination none of these showed any pathogenic organism.

Serology Section

The work in the section continued to be the same as the previous year. Kahn and Wassermann antigens, antigens for the widal test and haemolysin were prepared in the section. Kahn antigens and widal antigens which were asked for, by private and Government Institutions were supplied.

As widal test against salmonella cholera suis consistently gave negative results in the past year, that antigen was not used for the test during the current year. Details of work done in the section are given below.

Specimens received (GSF)	..	42
Do. blood	..	6346
Total	..	6388
Blood lysed and unsatisfactory for test	..	163
Tested qualitatively for Kahn	..	6225

VDRL	..	6225
Tested quantitatively for VDRL	..	537
WR	..	537
Paul Bunnell test	..	4
Kahn Antigen prepared	..	490 c.c.
Wassermann Antigen prepared	..	100 c.c.
Kahn Antigen issued	..	170 c.c.
Haemolysin production	..	25 ml.

Widal test

Total No. of specimens received	..	1751				
Organisms	..	1:20	1:40	1:80	1:160	1:320
S. Typhi H	..	33	100	92	46	118
S. Typhi AH	..	8	30	12	4	5
S. Para BH	..	11	32	15	5	8
	..	1:10	1:20	1:40	1:80	1:160
Typhi O	..	12	66	99	992	255
S. Cholera Suis	..	All samples negative. Hence the test was discontinued.				

	<i>Emulsion prepared</i>	<i>Emulsion issued</i>
S. Typhi H	1025 ml.	360 ml.
S. Para AH	915 ml.	335 ml.
S. Para BH	950 ml.	325 ml.
S. Typhi O	755 ml.	30 ml.

Chemical Examiner's Section

A total No. of 6785 cases involving examinations of 12456 items, as against 4432 cases and 9477 items last year, were disposed of during the year 1966-67. A total number of 6938 certificates were issued from this laboratory to the courts, Medical Officers and investigating Officers. In the previous year the total certificates issued were 4453. The total number of articles pending examination on 31-3-1967 is as follows.

	<i>No. of items</i>
Human poisoning cases	.. 1,200
Prohibition cases	.. 7,000
Blood-stain cases	.. 254
Miscellaneous cases	.. 8
Total	.. <u>8,462</u>

R9514

An unprecedentedly large number of samples were received in prohibition and poisoning cases. The samples received were taken in order of their receipt in the Laboratory. The cases disposed of during the year are distributed as follows :—

		<i>No. of cases</i>	<i>No. of articles</i>
Human poisoning cases	..	592	1896
Animal poisoning cases	..	9	53
Blood-stain cases	..	276	1843
Seminal stain cases	..	25	76
Prohibition cases	..	5764	8215
Miscellaneous cases	..	119	373

A comparative statement of work turned out in the year 1964-65 1965-66 and 1966-67 is given below :—

Serial No.	Items	1964-65		1965-66		1966-67	
		No. of cases	No. of articles	No. of cases	No. of articles	No. of cases	No. of articles
1	2	3	4	5	6	7	8
1	Human poisoning ..	581	2016	776	2482	592	1896
2	Animal poisoning ..	7	21	10	55	■	53
3	Blood-stain cases	253	1784	283	1741	276	1843
4	Seminal stain cases	43	98	51	155	25	76
5	Prohibition cases	1770	2701	3162	4389	5764	8215
6	Miscellaneous cases ..	54	165	150	635	119	373
	Total ..	2708	6785	4432	9177	6785	12456

1. *Human Poisoning cases.*—A total number of 598 cases involving examination of 1896 articles were disposed of during the year under report. Poison was detected in 420 cases, the percentage of detection being 70.23. As in the previous year, the common insecticides, like

Diazinon, Parathion and Endrin were responsible for the majority of suicide cases.

The poisons detected are classified as follows:—

Diazinon (Tik-20)	..	127
Parathion	..	93
Endrin	..	27
Oleander	..	35
C. Odollam	..	25
Formic acid	..	17
Acetic acid	..	9
Unidentified organic phosphorus compound	..	28
Zinc phosphide	..	17
Ethyl alcohol	..	7
Unidentified alkaloid	..	4
Unidentified glucoside	..	3
Colchicine	..	1
Phenobarbitone	..	3
Benzene hexachloride	..	3
Sulphuric acid	..	1
Barbiturate	..	3
Kerosene oil	..	2
Camphor	..	1
Selenium Sulphide	..	1
D.D.T.	..	1
Malathion	..	2
Cresols	..	2
Arsenic	..	2
Cyanide & hydrocyanic acid	..	4
Histo-pathology (tissues of suspected poisoning) sent to Professor of Forensic Medicine)	..	2
Total	..	420

1200 samples are pending examination

2. *Animal Poisoning cases.*—9 cases involving examination of five three samples were disposed of during the year under report. Poison was detected in 6 cases. These poisons are classified as below:—

		<i>No. of cases</i>
Hydrocyanic acid	..	2
Zinc phosphide	..	3
Diazinon (Tik-20)	..	1
Total	..	6

...olving examination of 1843
 ... Human blood was detected
 ... on 11 samples. Bovine
 ... blood was detected on 278
 samples. Blood grouping was carried out on 171 samples. As in the
 previous years anti-serum required for the precipitin test was prepared
 in the Laboratory using fowls. 97 ml. of anti-human serum and 2 ml.
 of anti-cow serum were prepared during the year.

4. *Seminal Stain Cases.*—25 cases involving examination of 76
 items were disposed of during the year. Semen was detected only
 on 11 articles.

5. *Prohibition Cases.*—5764 cases involving examination of 8215
 samples were disposed of during the year under report. There has
 been an almost 100 per cent increase in the volume of work under this
 head. This was due to the court ruling in 1965-66 that certificates of
 chemicals analysis of samples were mandatory before launching prose-
 cutions. About 1500 samples of arishtas alleged to be spurious were
 received from the Excise Department during the year. In addition to
 the determination of the ethyl alcohol content, they have to be examined
 for the presence of other habit forming drugs—chloral hydrate, paral-
 dehyde, ganja, opium, barbiturates, etc. which are added to make
 the consumer addicted to that particular arishtam. The methods for
 the examination of these compounds are laborious and time consuming.

The samples received under prohibition cases are as follows:—

1. Illicit arrack, Koda, tinctures, foreign liquors etc.	..	7734
2. Blood for the determination of alcohol concentration.	.	427
3. Stomach wash, urine etc.	..	54
Total	..	8215

6. *Miscellaneous.*—Examination of opium, ganja, explosives,
 milk powder, manures, sugar etc., come under this head. During the
 year under report 119 cases involving the examination of 373
 samples were disposed of. Bones and tissues as usual were forwarded
 to the Professor of Forensic Medicine, Medical College, Trivandrum
 for expert opinion. The samples received are classified as follows:—

Samples	No. of cases	No. of items
Ganja	.. 69	210
Opium	.. 23	59
Hair	.. 3	6
Butter oil	.. 1	2

<i>Samples</i>	<i>No. of cases</i>	<i>No. of items</i>
Explosives	4	10
Beedies	.. 1	4
Milk powder	.. 4	9
Piperine	.. 2	7
Manure	.. 3	47
Bones	.. 1	7
Gun Powder	.. 1	2
Rice	.. 1	1
Soya bean salad oil	.. 1	3
Ammonium sulphate	.. 1	1
Urea	.. 1	1
D.D.T.	.. 1	1
Edible thing made of rice	.. 1	1
Uterus	.. 1	1

Nutrition section

The nutrition work in the Laboratory is carried out in two Divisions viz., the State Nutrition Division and the Applied Nutrition Division. The State Nutrition Section is carrying out dietary and nutrition surveys, feeding trials, etc. and thus functions as a Unit directly under the control of the Director of Health Services. The Applied nutrition section works in co-ordination with Development Department and is mainly concerned with nutrition education and publicity.

The main items of work carried out in the State Nutrition Divisions were dietary survey and clinical studies on Hypoprotein acmia and anaemia.

(a) *Hypoprotein acmia*.—(1) With processed fish flour.

Malnourished subjects from an orphanage in Trivandrum City were taken as subjects for the study. Fish tablets and fish poorie powder were used in this study.

Preparations containing fish tablet and fish poorie powder to give a supplementary of 32 gm. of protein/day were given to 6 and 5 subjects respectively for 30 days and its effect on total protein studies. Dietary status of all the subjects were obtained by the method of oral dietary survey. Samples of venous blood were drawn from all the subjects in the beginning and at the end of 15 and 30 days of feeding for the estimation of serum proteins, serum albumin and for complete haematological studies.

The rate of protein regeneration observed with both fish poorie and fish tablets are comparable. The results of the completed study are given below:—

**Studies with processed fish flour in Hypoprotein aemia
means of protein and albumin**

Diet	P1	A1	P2	A2	P3	A3
Skim milk ..	5.00	1.50	6.82	2.44	7.86	3.31
Fish protein tablet ..	6.92	2.26	7.38	2.73	7.73	3.38
Fish poorie powder (plain)	7.60	2.78	7.83	3.10	..	.

P1—Initial total protein.

A1—Initial Albumin.

A2—Albumin after 15–18 days of diet.

P2—Total protein after 15–18 days of diet.

P3—Total protein after 30 days of diet. A3—Albumin after 30 days of diet.

**Means of albumin Regeneration—Response to different
duration of feeding**

Diet	Total cases taken for study	Mean rise in albumin			
		After 15–18 days of diet		After 30 days of diet	
		No. of cases completed	Rise in albumin	No. of cases completed	Rise in albumin
Skim milk ..	32	..	0.94	32	1.82
Fish protein tablet ..	27	6	0.47	3	1.12
Fish poorie powder (plain) ..	4	3	0.32	..	..

A similar study with non-processed fish flour is in progress at the General Hospital, Trivandrum.

(b) *Anaemia*.—A study on the effect on high vegetable origin on the level of serum iron were selected from an orphanage. The subjects were

Basic dietary survey of all the children were done by the oral questionnaire method. The dietary protein was far below the normal requirement and derived mainly from cereals. The first and second group were given plain upma for 30 and 15 days respectively. The third and fourth group were given 75 mg. and 100 mg. of iron respectively in addition to the upma. The fifth group was given only 150 mg. of iron per day. Samples of venous blood were drawn from all the subjects in the beginning and after 15 days of diet. Samples of blood were drawn from the subjects in the 1st group after 30 days also. Biochemical studies such as serum iron and U.I.B.C. were done along with complete haematological studies.

It was found that serum iron regeneration or the lowering of U.I.B.C. were similar in groups given upma with and without iron supplementation. No lowering of U.I.B.C. was observed in the group which was given medicinal iron without protein supplementation. This confirms that iron supplementation is of no value without enough of protein in the diet.

As all the subjects had helminthic infestation, often multiple, it was also inferred that a balanced high protein vegetable diet has haematopoietic effect inspite of helminthic infestation. Summary of the results are shown in Table I.

Dietary surveys

Dietary survey of 11 hostels in Trivandrum City was done during the year. The dates analysed and report submitted. Though the calorific value of the diets meet the recommended allowances, in all hostels, the intake of protective food stuffs like pulses, fresh foods, milk and fruits are far below the recommended quantity. Thus the diets lack in most of the important nutrients like Protein, Calcium, Iron and Vitamin A. In no institution raw vegetable in the form of salad or juicy fruits are given. In short, the diets need modification to meet the requirements of the inmates of the hostels.

Preliminary arrangements for conducting diet survey in the orphanages in Trivandrum City were made and the diet survey of one of the institutions was completed.

Literary work

Two numbers of 'Nutrition' the quarterly published by the Nutrition Research Laboratories were translated by the Scientific Officer and sent to the Health Education Division of the Directorate of Health Services for publication.

TABLE I
Studies of anaemia—Summary of feeding trials with M.P.F. average of serum iron, percentage saturation and Hb(g)

Groups	Average age	A				B				C						
		Serum iron	UIBC	TIBC	Percentage of Saturation	Hb (g)	Serum iron	UIBC	TIBC	Percentage of Saturation	Hb (g)	Serum iron	UIBC	TIBC	Percentage of Saturation	Hb (g)
I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
I a	6-2	51.4	386.5	436.5	11.5	7.5	70.8	377.3	447.6	15.6	6.6	..	..	..	20.6	11.25
I b	9-3	79.1	346.4	425.5	18.7	9.95	86.3	373.0	460.0	18.1	10.5	84.1	319.4	403.5	..	..
II	10-9	79.8	373.4	453.2	16.8	8.94	96.7	368.3	465.0	20.1	8.1	..	..	..	..	..
III	11.7	82.1	356.1	438.2	19.5	10.8	88.9	359.0	448.2	20.3	11.1	..	..	..	..	..
IV	10.2	..	315.6	..	..	..	..	382.2	..	..	..	..	..	..	..	..

Initial values

Values after 15 days.

Values after 30 days

Value after 45 days

Value after 60 days

Value after 75 days

Value after 90 days

Value after 105 days

Value after 120 days

Value after 135 days

Value after 150 days

Value after 165 days

Value after 180 days

Value after 195 days

Value after 210 days

Value after 225 days

Value after 240 days

Value after 255 days

Value after 270 days

Value after 285 days

Value after 300 days

Value after 315 days

Value after 330 days

Value after 345 days

Value after 360 days

Value after 375 days

Value after 390 days

Value after 405 days

Value after 420 days

Value after 435 days

Value after 450 days

Value after 465 days

Value after 480 days

Value after 495 days

Value after 510 days

Value after 525 days

Value after 540 days

Value after 555 days

Value after 570 days

Value after 585 days

Value after 600 days

Value after 615 days

Value after 630 days

Value after 645 days

Value after 660 days

Value after 675 days

Value after 690 days

Value after 705 days

Value after 720 days

Value after 735 days

Value after 750 days

Value after 765 days

Value after 780 days

Value after 795 days

Value after 810 days

Value after 825 days

Value after 840 days

Value after 855 days

Value after 870 days

Value after 885 days

Value after 900 days

Value after 915 days

Value after 930 days

Value after 945 days

Value after 960 days

Value after 975 days

Value after 990 days

Value after 1005 days

Value after 1020 days

Value after 1035 days

Value after 1050 days

Value after 1065 days

Value after 1080 days

Value after 1095 days

Value after 1110 days

Value after 1125 days

Value after 1140 days

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Value after 1170 days

Value after 1185 days

Value after 1200 days

Value after 1215 days

Value after 1230 days

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Value after 1275 days

Value after 1290 days

Value after 1305 days

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Value after 1365 days

Value after 1380 days

Value after 1395 days

Value after 1410 days

Value after 1425 days

Value after 1440 days

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Value after 1500 days

Value after 1515 days

Value after 1530 days

Value after 1545 days

Value after 1560 days

Value after 1575 days

Value after 1590 days

Value after 1605 days

Value after 1620 days

Value after 1635 days

Value after 1650 days

Value after 1665 days

Value after 1680 days

Value after 1695 days

Value after 1710 days

Value after 1725 days

Value after 1740 days

Value after 1755 days

Value after 1770 days

Value after 1785 days

Value after 1800 days

Value after 1815 days

Value after 1830 days

Value after 1845 days

Value after 1860 days

Value after 1875 days

Value after 1890 days

Value after 1905 days

Value after 1920 days

Value after 1935 days

Value after 1950 days

Value after 1965 days

Value after 1980 days

Value after 1995 days

Value after 2010 days

Value after 2025 days

Value after 2040 days

Value after 2055 days

Value after 2070 days

Value after 2085 days

Value after 2100 days

Value after 2115 days

Value after 2130 days

Value after 2145 days

Value after 2160 days

Value after 2175 days

Value after 2190 days

Value after 2205 days

Value after 2220 days

Value after 2235 days

Value after 2250 days

Value after 2265 days

Value after 2280 days

Value after 2295 days

Value after 2310 days

Value after 2325 days

Value after 2340 days

Value after 2355 days

Value after 2370 days

Value after 2385 days

Value after 2400 days

Value after 2415 days

Value after 2430 days

Value after 2445 days

Value after 2460 days

Value after 2475 days

Value after 2490 days

Value after 2505 days

Value after 2520 days

Value after 2535 days

Value after 2550 days

Value after 2565 days

Value after 2580 days

Value after 2595 days

Value after 2610 days

Value after 2625 days

Value after 2640 days

Value after 2655 days

Value after 2670 days

Value after 2685 days

Value after 2700 days

Value after 2715 days

Value after 2730 days

Value after 2745 days

Value after 2760 days

Value after 2775 days

Value after 2790 days

Value after 2805 days

Value after 2820 days

Value after 2835 days

Value after 2850 days

Value after 2865 days

Value after 2880 days

Value after 2895 days

Value after 2910 days

Value after 2925 days

Value after 2940 days

Value after 2955 days

Value after 2970 days

Value after 2985 days

Value after 3000 days

Value after 3015 days

Value after 3030 days

Value after 3045 days

Value after 3060 days

Value after 3075 days

Value after 3090 days

Value after 3105 days

Value after 3120 days

Value after 3135 days

Value after 3150 days

Value after 3165 days

Value after 3180 days

Value after 3195 days

Value after 3210 days

Value after 3225 days

Value after 3240 days

Value after 3255 days

Value after 3270 days

Value after 3285 days

Value after 3300 days

Value after 3315 days

Value after 3330 days

Value after 3345 days

Value after 3360 days

Value after 3375 days

Value after 3390 days

Value after 3405 days

Value after 3420 days

Value after 3435 days

Value after 3450 days

Value after 3465 days

Value after 3480 days

Value after 3495 days

Value after 3510 days

Value after 3525 days

Value after 3540 days

Value after 3555 days

Value after 3570 days

Value after 3585 days

Value after 3600 days

Value after 3615 days

Value after 3630 days

Value after 3645 days

Value after 3660 days

Value after 3675 days

Value after 3690 days

Value after 3705 days

Value after 3720 days

Value after 3735 days

Value after 3750 days

Value after 3765 days

Value after 3780 days

Value after 3795 days

Value after 3810 days

Value after 3825 days

Value after 3840 days

TABLE II

Month	Serum protein	Serum albumin	Haematological studies	Serum iron	Unsaturated iron binding capacity	Diet survey calculations		Diet survey		Subjects selected for feeding trials					Translation (Nutrition)	
						Oral (individual)	Weightment method (institutional)	Oral (individual)	Weightment method (institutional)	P. H. Laboratory	Chithra Home	Chithra Home	Fish flour	Fish tablets	Chithra Home	Iron tablets
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
April	45	43	45	20	20	20	..	25	..	8	10	4	..	3	..	..
May	33	33	34	30	30	40	..	31	..	..	30	1	..	3	..	..
June	..	17	10	10	10	75	..	3	..	..	..	..	..	..	..	..
July	..	..	11	11	11	120	..	..	..	..	..	..	..	..	10	..
August	..	..	9	9	9	..	..	..	6	..	..	..	..	..	..	..
September	..	..	..	..	..	..	1	..	4	..	..	..	3	..	..	..
October	3	3	3	..	..	..	5	..	1	..	..	..	3	..	..	..
November	3	2	2	..	..	..	5	..	..	..	..	..	3	..	..	..
December	3	3	3	..	..	..	..	..	..	..	..	..	3	..	..	..
January	5	5	5	..	..	..	..	..	..	..	..	..	1	..	..	1
February	5	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..
March	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	110	108	124	80	80	225	11	59	11	8	40	5	10	6	10	2

Applied Nutrition Division

Progress of A.N.P. in the five old Blocks.—The Programme continued in the five Blocks—Athiyannur, Trivandrum Rural, Kottarakara, Ollukkara and Taliparamba during the year as per the 'Planops'.

The feeding of milk and eggs to 35,842 beneficiaries—25,670 pre-school children and 10,172 mothers belonging to 300 centres of the above Blocks were continued till October 1966. Then an evaluation of the feeding programme was conducted in 125 of the above centres consisting of about 7,000 beneficiaries. There was marked improvement in growth and nutritional status of the children.

Under the guidance of the Project Nutrition Officer and help of the Medical Officers of the concerned Primary Health Centres and the Block Development Officers a reselection of beneficiaries in all the 300 centres were done. Besides milk and eggs, fish feeding was also started in all the above blocks except Taliparamba from December 1966.

Extension of Programme to 8 Blocks from 1966.—The following Blocks were included under the Programme from April 1966:

Vettukavala, Chittoor, Pattanakadu, Attapady, Kaduthuruthy, Kunnamangalam, Koovapady, Payyannur

A three day consecutive diet survey of 100 families each in the above 8 Blocks was carried out by the staff of the concerned Primary Health Centres under the supervision of Health Inspectors. On analysing the data collected, it was observed that the diet of the majority of people in the Blocks was deficient in protein, fat, minerals and most of the vitamins. The total calorie intake was also below 2,000 per consumption unit in the lower income groups. In the Chittoor Block though calorie intake was satisfactory, the diet was deficient in many other respects. In Attappady the lower income group consumed more ragi and other millets than rice which was helpful in meeting the calcium requirements of the people there. The diet of the people of Pattanakadu Block seem to be the poorest among the series surveyed. The findings of the survey are tabulated in the tables attached.

Selection of beneficiaries from the 240 feeding centres under the various Mahila Samithies from the above 8 Blocks were done, as in the case of the five Blocks started. 23 659 beneficiaries—18,115 elected from the above centres from July 1966.

TABLE III -21 (c)
Diet survey - Average daily intake of nutrients per consumption unit

District	Palghat	Alleppey	Cannanore	Quilon	Kozhikode	Bengaluru	Kottayam	Palghat	Average
Block	Chittoor	Pattanam-kad	Payyannur	Vettukavayala	Kannanur- engalam	Koovay- pady	Kadathur- mudy	Annapady	
Proteins									
Animal	7.7	12.0	6.3	12.0	15.0	11.3	9.6	7.3	10.2
Vegetable	60.2	39.7	47.0	31.1	47.3	36.0	29.2	36.3	43.6
Total	67.9	50.7	53.3	43.1	62.3	50.3	38.8	43.6	53.8
Fats									
Animal	11.8	1.0	2.2	7.3	5.9	1.7	1.1	3.8	5.1
Vegetable	34.8	22.8	19.5	25.4	36.2	26.6	17.0	11.9	24.2
Total	46.6	23.8	21.7	32.7	42.1	31.3	24.1	15.7	29.3
Carbohydrate									
Calcium	52.96	361.3	170.7	365.0	488.2	527.2	366.0	401.0	437.8
Phosphorus	6.55	0.28	0.26	0.29	0.43	0.20	0.20	1.16	0.33
Iron	24.5	0.60	1.18	0.98	1.16	1.87	0.36	2.03	1.43
Vitamin A	24.9	19.7	21.1	17.0	26.0	16.00	15.2	30.7	20.8
Vitamin C	1340	1279	1230	962	2019	991	766	1326	1230
Thiamine	2.01	1.33	1.96	1.27	1.58	0.83	1.24	1.50	1.49
Riboflavin	0.53	0.37	0.38	0.35	0.57	0.17	0.42	0.65	0.47
Nicotinic acid	23.31	20.70	21.88	14.80	20.25	29.67	15.36	18.97	18.09
Ascorbic acid	49.01	26.60	43.41	24.20	66.00	70.30	27.30	42.60	44.85
Calories	2731	1811	2291	1931	2363	2163	1793	2011	2107

TABLE IV
Food consumption by different income group
Amount consumed in grams

<i>Name of the foodstuff</i>	<i>Below Rs. 2 caput/ month</i>	<i>Between Rs. 20 to 40 caput/ month</i>	<i>Above Rs. 40 caput/ month</i>	<i>Remarks</i>
Cereals:—				
Rice	271.2	336.9	479.8	Average of 8 Blocks
Wheat	42.1	29.5	26.8	
Ragi	14.4	16.8	3.1	
Cholam	8.9	..	..
Chama (Samai)	10.1	8.3	..	
Others	..	..	..
Pulses and Beans:—				
Bengal-gram	.6	.6	.6	
Red-gram	11.4	14.2	13.3	
Green-gram	1.3	4.7	7.0	
Black-gram	1.5	3.4	8.5	
Horse-gram	12.6	9.1	1.1	
Beans	..	.2	.2	
Leafy vegetables	3.4	3.7	15.0	
Non-leafy vegetables	65.3	88.9	102.8	
Root and tubers	125.6	77.9	115.3	
Fruits	23.1	26.6	40.9	
Ghee	.4	1.0	1.8	
Vegetable oil	3.6	6.1	13.8	
Milk	13.9	39.9	111.4	
Milk product	..	..	..
Curds	1.5	4.2	10.4	
Buttermilk	.2	4.8	14.9	
Meat	3.4	8.9	24.8	
Fish	20.3	27.8	26.8	
Eggs	.1	3.2	5.3	
Sugar and jaggery	15.5	19.0	31.1	
Condiments	10.5	11.4	21.2	
Other foodstuffs	..	..	..

3. The audio visual equipment, viz., two cine projectors and the necessary accessories were received from the UNICEF.

Anti-rabic Section

1. *Cowrie of goats.*—Fifty-eight goats were in the shed at the beginning of the year. Brains from 1,154 goats (1,030 for preparing 5 per cent vaccine and 124 for preparing 20 per cent vaccine) were used for vaccine preparation. 34 goats died due to intercurrent disease or other causes after inoculation. 53 goats remained in the shed at the end of the year.

2. *Production and issue of vaccine.*—(i) *5 per cent vaccine.*—The stock of vaccine at the beginning of the year was 56,033 ml., 17,08,929 ml. were produced during the year and 17,07,843 ml. were issued. 57,139 ml. of vaccine was the closing balance at the end of the year. The details of distribution of vaccine are given below:—

1. To Government Hospitals and P.H. Laboratory for human treatment	..	9,34,704
2. To Animal Husbandry Department and Block Development Office for animal treatment	..	7,71,500
3. To private parties for human treatment	..	1,650
4. To private parties for animal treatment	..	483
Total	..	<u>17,07,843</u>

(ii) *Twenty per cent vaccine.*—The stock at the beginning of the year was 191 doses. 6,625 doses were produced during the year. 6,744 doses were issued during the year leaving a balance of 132 doses at the end of the year. The details of distribution are given below:

1. Doses in stock at the beginning of the year	..	191
2. Produced during the year	..	6,625
Total	..	<u>6,876</u>
3. Issued during the year	..	6,744
Balance stock at the end of the year	..	132

(iii) *Seed virus*.—The paris strain of fixed virus continued to be used for seed. 35 rabbits were used for the maintenance and production of seed.

(iv) *Tests of vaccine*.—All the batches of vaccine were subjected to the usual bacteriological tests, tests for the presence of carbolic acid, tests for toxicity, sterility, etc., before being passed for issue.

3. *Diagnostic work in rabies*.—Drains of 13 animals were examined for evidence of rabies infection. These included 10 dogs, 1 cow, 1 goat and 1 cat. Of these, 7 dog brains proved to be positive for rabies. All the rest were negative.

4. *Treatment statistics*.—(i) *Human treatment*.—Approximately 10,000 cases (complete figures have not been received) were treated including 1,500 treated in the Public Health Laboratory, Trivandrum. The cases treated in the Public Health Laboratory are classed below according to the biting animal.

Dog	..	1431
Cat	..	17
Goat	..	16
Jackal	..	1
Man	..	8
Cow	..	26
Other animals	..	1
		<hr/>
Total	..	1500
		<hr/>

No case of post-treatment complication was reported during the year.

(ii) *Animal treatment*.—2456 (figures not complete) animals were treated during the year for mad animal bite.

The specimen of animals treated are classified as hereunder.

Dog	..	521
Calf	..	323
Goat	..	451
Kid	..	49
Cow	..	730
Heifer	..	94
Bull	..	149
Buffalo	..	130
Pig	..	1
		<hr/>
Total	..	2456

The following statements show the work of the section which paralleled that of the previous year.

1. Goats in the shed at the commencement of the year	..	58
2. Goats purchased	..	1163
3. Goats for which brain was collected	..	1154
4. Goats died due to intercurrent disease	..	34
5. Goats in the shed at the end of the year	..	53

(iii) *Production and issue of 5 per cent vaccine.*—

1. Stock at the commencement of the year	..	56053 ml.
2. Produced during the year	..	1708929 "
3. Total stock	..	1764982 "
4. Issued during the year	..	1707843 "
5. Balance stock at the end of the year	..	57139 "

Vaccine Lymph Section

The following statements give the details of the working of the section during the year under review:—

STATEMENT NO. I

No. of calves admitted	..	463
Do. rejected	..	77
Do. inoculated	..	326
Do. extracted	..	353
Do. used for potency test	..	18
Do. failures	..	9
Do. from which pulp was not extracted due to other causes	..	6

STATEMENT NO. II

Stock of crude pulp remaining at the end of the previous year	..	695 gm.
Quantity added during the year	..	15807 "
Quantity processed	..	14142 "
Balance	..	2360 "

STATEMENT NO. III

Quantity supplied to the field staff of Health Service Department, Eradication Programme, Municipalities, Private Parties, etc.	..	77242.5 ml.
Quantity used for local vaccination	..	257.5 "

8275 revaccinations and 297 primary vaccinations were conducted in this institution during the year.

Two random samples of vaccine produced in this laboratory were sent to the Deputy Director, National Institute of Communicable Diseases, New Delhi for subjecting them to potency and microbial purity test and these lots compared favourably with the W.H.O. standards.

Bacterial vaccine

1. *Cholera vaccine*.—The manufacture strains used and the tests the vaccine were subjected to remained the same as in previous year.

1. Stock of cholera vaccine as on 1st April 1966	..	430630 ml.
2. Quantity of cholera vaccine produced during the above period	.	2286180 "
3. Quantity of cholera vaccine supplied during the above period	.	2369600 "
4. Quantity of vaccine discarded due to contamination	..	5000 "
5. Balance of cholera vaccine on 31st March 1967	..	342210 "

The quantity of vaccine produced here was sufficient to meet the demand of the State for the current year. The production here was about the same as in the previous year. An attempt was made to start the potency tests. For the actual test, freeze dried strain should be used after one or two subcultures. This could be done only after we obtained a freeze drier. In the preliminary attempt itself, the L.D. 50 varied greatly. The study could not be continued due to the outbreak of salmonellosis in the animal house and consequent reduction in mice. A total of 282, three week old mice were used for the test of which only 63 survived the test.

2. *T.A.B. vaccine*.—Sufficient quantity of vaccine to meet the entire demands of the State was manufactured and supplied. The production and demand were almost the same as those of the previous year.

From 1st April 1966 to 31st March 1967—

1. Stock of T.A.B. vaccine as on 1st April 1966	..	12116 ml.
2. Quantity of T.A.B. vaccine produced during the above period	..	66260 "
3. Quantity of T.A.B. vaccine supplied during the above period	..	57922 "
4. Balance in stock on 31st March 1967	..	20454 "

3. *Autovaccine and streptostaphylo vaccine*.—The preparation and issue of these continued to be a part of the Bacteriology Section.

	<i>Preparation</i>	<i>Issue</i>
Sugar	10150 ml.	302 sets.
Water alkaline peptone	3000 „	259 tubes.
Water-Hiss's serum	100 „	100 ml.
2. Stains/Solutions.—		
Acid alcohol	600 „	60 ml.
Andrede's indicator	317 „	Used in the preparation of sugar.
Carbol fuchsin	1500 „	1460 ml.
Gentian violet	2250 „	2250 „
Oieme's stain	4400 „	4400 „
Gram's iodine	1750 „	1750 „
Nothylone blue	500 „	710 Balance of stock from previous year was utilised.
Neutrial red	100 „	Used in the section for preparation of Mac Conkey.
Phenol red	2000 „	Used for agar in the section for estimation of pH.
Saffranine	300 „	300 ml.
Glycerine 50 per cent in distilled water	5600 „	5050 „
Extract pancreatic	2000 „	Used in the section for preparation of Douglas broth.
Sodium citrate 5 per cent	1300 „	Used for collection of blood for the preparation of blood agar.
Sodium hydroxide	40500 „	Used in the section for adjustment of pH.
Solution-mucin	2000 „	2000 ml.
Water-carbolic 2 per cent	104200 „	102200 „
Water distilled	9110 litres	272·25 litres
		The rest taken for use in the section.
3. Salines.—		
Saline buffered	23000 ml.	2181 Mac Cartney bottles
Saline carbolic 0·5 per cent	2221600 „	2125335 ml.
Saline carbolic 1 per cent	1558000 „	1384000 „
Saline carbolic 2·5 per cent	27100 „	24800 „
Saline normal	2540000 „	1850710 ml. sterile 138000 ml. unsterile

Preparation
2650 ml.

Issue
2650 ml.

Saline phosphate buggered			
4. Washing, Wrapping and Sterilisation.—			
Aluminium caps	..	54 bottles	
Ampoule	..	146 boxes	
Bottles (of different types including vials)	..	78522 Nos.	
Filters (Large and small)	..	1602	
F.T.M. tubes	..	614 sets	
Funnels	..	941 Nos.	
Funnels with gauze	..	1231	
Measuring cylinders	..	148	
Petri dishes	..	1048	
Pipettes	..	1940 cases	
Rubber washers	..	65 bottles	
Stainless steel dishes with lid	..	1006 Nos	
Stainless steel plates	..	808	
Syringes	..	154	
Test tubes	..	330	
Waring Bleniors	..	543	
5. Autoclaving only.—			
(a) For one hour at 15 lb. pressure	..	219 Nos	
Bins with contents	..	12	
Drums with ampoules	..	192 bottles	
(b) For 30 mnts. at 15 lb. pressure	..	21549 Nos.	
50 per cent glycerine in saline	..	979	
Distilled water ampoules	..	1227	
Distilled water (5 lb. bottles)	..	18 bottles	
Normal saline (540 ml. bottles)	..	2024 Nos	
Liquid paraffin	..		
(c) For 15 mnts. at 15 lb. pressure	..		
Glucose saline (540 ml. bottles)	..		

Animal House

A detailed statement of the Laboratory animals supplied to the different sections is given below :

Kind of animals	Anti-cholera	Vaccine lymph	Sections				Total
			Sterile solution	Cholera	Bacteriology	Serology	
Rabbits	36	25	165	..	..	..	226
Puncea Pigs	..	28	..	4	1	50	83
ice	1243	257	..	363	..	..	1863

Twenty-four rabbits, 37 mice and 78 rats were sold to private parties. Three weeks old mice were supplied in good quality for starting the potency tests here. This drain on young mice has told upon the breeding stock. On top of this, disaster struck the animal house in the form of an epidemic of salmonellosis during the month of June and lasted till October 1966. The causative organisms was isolated and sent to Salmonella Reference Laboratory, Kasauli for identification. Their report was that it was *Salmonella typhi* murium. There were a number of deaths due to this epidemic. Moreover, as a direct consequence of the epidemic, breeding had to be stopped.

The following table gives the stock of animals before and after the epidemic-

<i>Animals</i>		<i>Before epidemic</i>	<i>After epidemic</i>
Rabbits	..	55	34
Mice	..	747	140
Guinea pig	..	90	50

The number of laboratory animals at the close of the year is as follows :

<i>Kind of animals</i>		<i>Breeding</i>	<i>Experimental</i>	<i>Total</i>
Rabbits	..	37	2	39
Guinea pigs	..	41	6	47
Mice	..	219	6	225
Rats	..	40	..	40

The stock of animals is only about 50 per cent of what it was during last year. This balance was after the supply of 226 rabbits, 1885 mice and 84 guinea pigs to the different sections of the laboratory during the course of the year.

Library Section

Only very essential journals needing foreign exchange was brought during the year. Importance was placed on the Indian journals. The journals and books were geared to the needs and working of the institution. The following books and journals were received during the year:—

<i>Sl. No.</i>	<i>An.No.</i>	<i>Name of the new book</i>	<i>Author or Editor Publisher</i>	<i>Year of edition</i>
1	625	Cholera	R. Pollitzer, M.D. W.H.O.	1959
2	626	Glossary of Administrative Terms English—Malayalam	The Official Language Committee constituted by Government of Kerala	1960

Sl. No.	An No.	Name of the new book	Author or Editor Publisher	Year of edition
3	627	Seminar on Cholera 1963 Indian Journal of Medical Research Vol. I, No. 8 August 1964	The Indian Council of Medical Research	1964
4	628	The Nutritive Value of Indian Foods and the Planning of Satisfactory Diets	C. Gopalan and S. C. Balasubramoniam, Indian Council of Medical Research do.	1963
5	628A	Do.	do.	1963
6	629	Kerala Rules Edition Kerala Rules Edition.	Service Second Service Second New	1964
7	629A	Amendments Kerala Account Code Vol. II Introduction of Medical Laboratory Technology	Kerala Government do. do.	1964
8	630	Manual for the Identification of Medical Bacteria	F. J. Baker, R. E. Silvertaon, E. D. Luckcock Butter- worth and Co.	1966
9	631	Calling the Labo- ratory	S. T. Cowan and K J Steel, Cambridge University Presses	1965
10	632	Methods of Forensic Science	W.A.R. Thomson, for- ward by Professor R. Cruickshank, Edinburgh and London	1966
1	633	Do	A. S. Curry, Division of Jolu Wiley and Son, London, New York, Sydney	1966
634		Taylor's Principles and Practice of Medical Jurispru- dence	Kieth Simpson, M A., M. D., F. R. C. P., C.F.C. Path D. M. J. J. and A. Chur- chil Limited I Vol. do. II Vol.	1966 1965
635		Remington's Phar- maceutical Scien- ces	Editor in Chief Corie W. Martin, ing Editor Hoover lishing Pensy	1965 1965

The following journals were received during 1966-67 :

	Nos.
1. Lancet ..	49
2. Today's Health ..	3
3. Nutrition Reviews ..	6
4. Tropical Diseases Bulletin ..	12
5. Medico-legal Journal ..	4
6. The Analyst ..	12
7. Analytical Abstracts ..	12
8. British Medical Journal ..	54
9. Indian Journal of Medical Research ..	12
10. Indian Journal of Public Health ..	4
11. Journal of American Medical Association ..	3
12. Indian Veterinary Journal ..	12
13. British Journal of Venereal Diseases ..	4
14. Bulletin of Calcutta School of Tropical Medicine ..	4
15. Indian Journal of Microbiology ..	1
16. Indian Journal of Pathology, Bacteriology ..	4
17. Journal of Nutrition and Dietetics ..	4
18. Public Health Reports ..	7
Total No. of books ..	624
No. of new books added ..	16
Total number ..	640
Total No. of bound volumes ..	597

Gas House

Gas production has been erratic and unpredictable during the whole year. In spite of manufacture twice or even thrice a week, a good supply could not be maintained. Fuel and kerosene oil consumption increased markedly from that of last year.

P.W.D. Workshop was requested to inspect the retort as a lot of dust was forming in it. As a result, a new retort was made with non-porous iron and fitted up. Repairs for the storage tanks was also renewed. In spite of these, gas production and supply remains the same.

Fuel used ..	21099 kn.
Kerosene oil used ..	4730.0 litres
Gas produced ..	2990140 cft.
Tar ..	392.5 litres

The tar produced as a byproduct has found demand from the public and it was sold to them at a nominal cost.

Carpentry Section

The work in the section is to get dealwood boxes from various places, dismantle them and make them into boxes of fixed specifications

for use in the various sections in the laboratory. These boxes are used to send vaccines, sterile solution, etc., to outlying places.

Boxes received

From Government Medical Stores	..	498 Nos.
From Co-operative Stores	..	1088 Nos.
From Public Health Laboratory Store	..	219 Nos.
From Family Planning Unit Store	..	107 Nos.

From the planks of these, 5171 boxes were remodelled and issued. 1912 Nos.

Packing Section

This section concerned with writing the issue notes and despatching parcels containing cholera and anti-rabic vaccine mainly. Antigens, streptostaphylo vaccines, autovaccines, etc., are also sent from the packing section. The total No. of parcels sent from the section during the year is 5,012.

Financial Aspects

The total expenditure of the Public Health Laboratory, Trivandrum for the year 1966-67 is Rs. 7,29,000 of which pay and allowances of staff came to Rs. 3,92,000 only.

The total revenue for the year 1966-67 came to Rs. 32,163.

CHAPTER IX

GOVERNMENT ANALYST

The Government Analyst

ORY

um continued the Director

During the year under analysis in the laboratory, out of which were analysed in Kerala. The total No. of samples during the year 1965-66 was 26,440 of which 17,171 were food samples and 9,269 water samples. There has been thus a significant increase in the volume of work of the laboratory.

Staff

The staff in the laboratory consists of.—

1. Chief Government Analyst
2. Government Analyst
3. Deputy Government Analyst
4. Research Officers
5. Junior Research Officers

..	1
..	1
..	1
..	11
..	15

6.	Sample Collectors	..	3
7.	Technical Assistants	..	12
8.	Laboratory Assistants	..	10
9.	Laboratory Attenders	..	9
10.	Junior Superintendent	..	1
11.	Upper Division Clerk	..	1
12.	Lower Division Clerks	..	6
18.	L.D. Accountant	..	1
14.	Stenographer	..	1
15.	Lower Division Typists	..	2
16.	Clerk-Typist	..	1
17.	Peons	..	5
18.	Packers	..	3
19.	Part-time Contingent staff	..	4

Shri P. Janardhana Aiyar continued as Chief Government Analyst. Shri C. J. Philip as Government Analyst and Smt. K. Pankajakshamma as Deputy Government Analyst. Messrs. N. Damodaran Nair, K. U. Mathai, C. S. Jaya Das, S. Narayana Iyer, S. Madhava Das, K. J. Antony, P. Atchutha Kurup and Smt. K. P. Indira Bai Amma continued as Research Officers. Smt. S. Karthiyani Amma, Smt. Bhama Thampuran and Smt. V. Vijayalekshmi Ammal were promoted as Research Officers, during the year under review.

Messrs. P. K. Mathen, N. Priyadarsanan, A. S. Mony, T. K. Subhashchandra Bose, K. T. Joseph, M. P. Joseph and K. M. Kosh continued as Junior Research Officers. Messrs. M. N. Damodaran, P. R. Chandran Nair, N. M. Varghese and E. G. Lokagith were promoted as Junior Research Officers. Smt. E. K. Thresia joined as Junior Research Officer during the year.

Financial aspects

Total receipts for the laboratory during the year was Rs. 74,300 and the total expenditure was Rs. 3,33,729.

For sake of convenience, the work relating to water and food analysis is dealt with separate headings

A. WATER ANALYSIS

The Water Analysis Section was mainly concerned with chemical and bacteriological analysis of water and sewage, and analysis of chemicals required for water treatment. Samples of water from the urban and rural water supplies of the State and Government institutions were collected by the Sample Collectors and brought to the laboratory. Samples of water and sewage from public undertakings and private individuals were sent by the parties requiring the analysis. A total number 9839 samples were analysed in the laboratory during the year, as against 9269 samples during 1965-66.

A summary of the work done in the Section is given in Table I.

The various activities are considered in detail in the following pages.

1. Urban Water Supplies

The sources for urban water supplies except Quilon, Alleppey and Cannanore are derived from the rivers. Since the rivers in the Kerala State are not contaminated by the trade effluents before the intake points of the water supply systems, no appreciable change in the quality that makes the water unsafe for the potable purposes was noticed. Generally high turbidity and increase of iron content were noticed only during the onset of monsoon season. The details of samples received are given in Table II below.

TABLE II
Water samples analysed from Urban Water
Supplies during 1966-67

Sl. No.	Particulars	Bacteriological	Chemical	Total
1	2	3	4	5
1	Willingdon Water Works, Trivandrum ..	4894	411	5305
2	Quilon Water Supply ..	277	133	410
3	Alleppey Water Supply ..	153	77	230
4	Kottayam Water Supply ..	192	108	300
5	Ernakulam Water Supply ..	292	81	373
6	Trichur Water Supply ..	140	73	213
7	Palghat Water Supply ..	118	99	217
8	Calicut Water Supply ..	120	76	196
9	Cannanore Water Supply ..	56	47	103
	Total ..	6242	1105	7347

The samples of water for analysis from the Willingdon Water Works were collected and sent by the authorities themselves. During the year 5305 samples were received for analysis. The chemical quality of the

water was satisfactory, but at times there was turbidity more than the permissible limits for the finished waters due to the sudden change in the quality of the raw water by the rain.

The bacteriological quality of the water collected from the distribution system cannot be considered as highly satisfactory. About 10 per cent of the samples collected from the distribution system were found to contain coliform organisms in 10 ml. volumes. This was mainly due to the lack of residual chlorine in the distribution system. On previous occasions, in order to overcome this defect, directions were given to the authorities of the Filter House to continue the chlorination process instead of the simple chlorination and this was found to be highly satisfactory.

A total of 410 samples were collected from the Sasthamcottah and Quilon Water Supply. The water for this supply is derived from a fresh water lake. The chemical quality of the raw water received in the Filter House was quite satisfactory. The total solids, chloride content and hardness are very low, and varied only within the range of 30-35, 10-12 and 8-12 respectively. The bacteriological quality of the finished water was not satisfactory. About 10 per cent of the samples collected from the distribution system were found to contain coliform organisms in 10 ml. volumes. This can be corrected by in the distribution system.veyed to Quilon by cement Chavara. Since the water is a bit corrosive, there is the possibility of the pipes being corroded in the long run.

No appreciable change in the chemical quality of the water supplied from the Alleppey Water Works was noticed this year. The water for the Alleppey Water Supply is derived from the Nattam Lake. The bacteriological quality of the water collected from the distribution system were found to contain coliform organisms in 10 ml. volumes. This can only be due to contamination during storage and distribution through pipe lines. Hence as precautionary measure, it is desirable that a small dose of chlorine be applied, as the water enters the storage reservoir.

The chemical and bacteriological quality of the water collected from the Kottayam Water Supply was good. Actually, the raw water undergoes a double filtration process, one at the infiltration gallery and the other at the Filter House.

During the year under report, 300 samples were collected. None of the samples from the distribution system were found to contain acetose fermenting organisms.

The samples from Ernakulam and Alwaye were collected only once a month. The samples from other protected urban supplies beyond Ernakulam were also collected only once a month. The frequency of the collection is proposed to be increased, by employing more Sample Collectors.

During the year, 373 samples were collected from Chowwara and Alwaye water supplies. The water for these supplies was derived from the Periyar river. Its chemical quality was very satisfactory.

The total solids, chloride and hardness were low, and varied between 25-40, 6-8 and 8-12 ppm. respectively. But the bacteriological quality of the water collected from the distribution system was not satisfactory. About 7 per cent of the samples were found to contain lactose fermenting organisms in 10 ml. volumes.

As in the previous years, the chemical and bacteriological quality of the water collected from the Trichur Water Supply were found to be good. During summer season, there were some complaints of smell of hydrogen sulphide and pale yellow colour to the raw water received at the filter house. A total of 213 samples were collected from this supply. None of the samples collected from the distribution system contained lactose fermenting organisms.

The quality of the samples of water collected from the Palghat Water Supply was satisfactory. 217 samples were collected during this year. About 2 per cent of the samples of finished water were found to contain lactose fermenting organisms in 10 ml. volume.

During the year 196 samples were collected from the Calicut Water Supply. The chemical quality of the water was satisfactory though there were some complaints regarding the sediments found in the water. The sediments consisted of iron together with the alum floc present in the water. The bacteriological quality of the water was not satisfactory. About 27 per cent of the samples collected were found to contain lactose fermenting organisms in 10 ml. volumes.

Since there was no protected water supply system in Cannanore as in the case of other district headquarters, the samples of water were collected from the open public wells in different zones and pumping supply at Anayidikki. A total of 103 samples were collected during the year. The bacteriological quality of the samples were not satisfactory, as there was no chlorination.

2. Rural Water Supplies

The samples of water from the rural water supplies were collected by the Sample Collectors of the laboratory. The complaints regarding the colour and taste of the water were more in the rural water supplies than in the urban supplies. Samples of water were collected once in two or three months from rural water supplies. With the present facilities, it has not been possible to collect samples from

all the rural water supplies. This is because some of the rural water supplies are situated in places which are not connected by public transport system. Further, the area to be covered is extensive. Hence, at present, samples of water are being collected only from a limited number of sources, i.e., about 20 per cent of the total number of rural supplies in the State. It is hoped to extend analytical services to all the rural water supplies, by augmenting the existing facilities.

The main sources for the rural water supplies are tube wells, infiltration wells and open wells. High iron content and low pH were noticed in about 50 per cent of the samples collected during the year. The details of the samples collected is given in Table III.

TABLE III

Water samples analysed from rural water supplies during 1966-67

Sl. No.	Particulars	Bacteriological	Chemical	Total
1	2	3	4	■
1	Rural Water Supplies, Trivandrum District ..	355	155	510
2	Rural Water Supplies, Quilon District ..	69	26	95
3	Rural Water Supplies, Alleppey District ..	149	66	215
4	Rural Water Supplies, Kottayam District ..	55	28	83
5	Rural Water Supplies, Ernakulam District ..	26	50	76
6	Rural Water Supplies, Trichur District ..	66	44	110
7	Rural Water Supplies, Palghat District ..	83	37	120
8	Rural Water Supplies, Kozhikode District ..	46	23	69
9	Rural Water Supplies, Cannanore District ..	38	17	55
10	Miscellaneous Sources ..	27	35	62
	Total ..	914	481	

The chemical quality of the water collected from the Trivandrum District was satisfactory except in the case of pH and iron content. Both these defects can be corrected by the application of lime. The water obtained in the Chirayinkil water supply is acidic (pH below 3-5) and large quantities of lime are used for maintaining the pH within the permissible limits.

For most of the rural water supplies in Quilon and Alleppey Districts, the water is derived from the tube wells, and the bacteriological quality of the water collected from the distribution system was satisfactory. In some places, low pH and high iron content were noticed. But in some places the water is being supplied directly from the pumping station where the tube well is installed. So there may be some practical difficulties from the treatment of water and the water is supplied, as such. The samples collected from the Kottayam District were found to be satisfactory.

About 50 per cent of the samples collected from the Ernakulam rural supplies were unfit for drinking purposes. Very high content of iron and chloride were noticed. In certain places, people are quite accustomed to use such brackish waters.

The general quality of the water collected from the rural water supplies at Trichur was quite satisfactory. During the year 110 samples were collected from six sources. But lactose fermenting organisms were present in 10 ml. volumes in 20 per cent samples collected from the distribution system. As in the previous year, the water from the Thiruvilwamala water supply maintained a good standard.

The quality of water from the Palghat and Calicut rural supplies were satisfactory. Only 5.0 per cent of the samples were found to contain lactose fermenting organisms in 10 ml. volumes. The addition of bleaching powder was done more frequently in these water supplies.

High content of iron, nitrite, nitrate, and low pH were noticed in the samples collected from the rural supplies at Cannanore. The bacteriological quality was also not very satisfactory.

3. Water samples from Government institutions

The samples of water for analysis from the Government institutions were mostly collected by the Sample Collectors of this laboratory and some of them were sent by the authorities concerned. A total of 535 samples were received in the laboratory during the year. The details are given in Table IV.

TABLE IV

Water samples analysed from Government Institutions during 1966-67

Sl. No.	Particulars	Bacteriological	Chemical	Total
1	2	3	4	5
1	..	58	39	97
2	..	6	7	13
3	..	36	18	54
4	Central Jail, Cannanore ..	20	15	35
5	P.H.E.D., Trivandrum ..	2	17	19
6	Special Sub Jail, Calicut ..	11	11	22
7	Primary Health Centre, Keezhmadu ..	..	1	1
8	T.B. Sanatorium, Pariyaram ..	4	4	8
9	Agricultural College, Vellayani ..	24	25	49
0	G.S.T.C., Kottarakara ..	6	6	12
1	Rural Institute, Thavanur ..	2	2	4
2	T.B. Clinic, Ponnani ..	1	..	1
3	Government Ceramics, Kundara ..	2	2	4
4	I.T.I., Dhanuvachapuram ..	1	1	2
5	Polytechnic, Vattiyookavu ..	2	2	4
6	Polytechnic, Cannanore ..	2	2	4
7	Medical College Hospital, Trivandrum ..	2	2	4
8	Museums and Zoos, Trivandrum ..	1	1	2
Total ..		180	153	335

The water supplied in most of the institutions are treated waters. Complaints received from these institutions are turbidity and pale brown colour. This was due to the low pH of the water and high content of iron in the water received at the taps, due to the condition of the pipe lines. Correct dose of lime can easily prevent the pipe line. The water samples taken from the Government Hospital, Punalur, T.B. Sanatorium, and the Training Centre, Kottarakara were coloured due to the presence of excessive quantities of iron. The authorities were supplied sufficient quantity of lime to remove the excess of iron.

4. *Analysis of samples in connection with pollution problems.*—As in the previous years, pollution of rivers by trade wastes were also investigated during the year. The complaints received with regard to the pollution were less during this year. A total of 71 samples of trade wastes and water samples from the rivers were collected during the year. On analysis of the samples collected from the Kallada river at Punalur, the B.O.D. and other constituents are found to be well within the standard prescribed by the Indian Standard Institution. The results of analysis of samples collected from Pamba river showed that the pollution was significant only during summer seasons. That was mainly due to the high dilution of the trade wastes during monsoon season. The details of the samples collected are given in Table V.

TABLE V
Samples analysed in connection with pollution control problems during 1966-67

<i>Sl. No.</i>	<i>Particulars</i>	<i>Bacteriological</i>	<i>Chemical</i>	<i>Total</i>
1.	Kallada River, Punalur ..	6	12	18
2.	Pamba River, Pulikeezhu ..	17	36	53
	Total ..	23	48	71

5. *Analysis of sewage.*—Samples of sewage for chemical, bacteriological and biological examinations were received from the Public Health Engineering Department from one Public undertaking (The Cochin Refineries, Ernakulam).

The details are given in Table VI.

TABLE VI
Sewage samples analysed during 1966-67

<i>Sl. No.</i>	<i>Particulars</i>	<i>Bacteriological</i>	<i>Chemical</i>	<i>Total</i>
1.	Samples received from P.H.E.D., Trivandrum ..	26	27	53
2.	Samples received from Cochin Refineries, Ernrkulam (on payment of fees) ..	62	62	124
	Total ..	88	89	177

TABLE IV

Water samples analysed from Government Institutions during 1956-57

Sl. No.	Particulars	Bacteriological	Chemical	Total
1	2	3	4	5
1	Neyyar Dam Quarter's Supply ..	58	39	97
2	.....	6	7	13
3	.....	36	18	54
4	.....	20	15	35
5	.....	2	17	19
6	.....	11	11	22
7	Animals Health Centre, Keezhmadu ..	..	1	1
8	T.B. Sanatorium, Pariyaram ..	4	4	8
9	Agricultural College, Vellayani ..	24	25	49
10	G.S.T.C., Kottarakara ..	6	6	12
11	Rural Institute, Thavanur ..	2	2	4
	T.B. Clinic, Ponnani ..	1	..	1
	Government Ceramics, Kundara ..	2	2	4
	I.T.I., Dhanuvachapuram ..	1	1	2
	Polytechnic, Vattiyookavu ..	2	2	4
	Polytechnic, Cannanore ..	2	2	4
	Medical College Hospital, Trivandrum ..	2	2	4
	Museums and Zoos, Trivandrum ..	1	1	2
	Total ..	180	153	333

The water supplied in most of the institutions are treated waters. Complaints received from these institutions are turbidity and pale brown colour. This was due to the low pH of the water and consequently high content of iron in the water received at the taps, due to the corrosion of the pipe lines. Correct dose of lime can easily prevent corrosion of the pipe line. The water samples taken from the distribution point of the Government Hospital, Punalur, T.B. Sanatorium, Pariyaram and the Training Centre, Kottarakara were coloured due to the presence of excessive quantities of iron. The authorities were advised to add sufficient quantity of lime to remove the excess of iron.

The quality of all the samples received from the Port of Cochin were satisfactory. Samples received from the Kerala State Electricity Board were found to be suitable for construction purpose and hydro-electric projects. The bacteriological quality of the samples received from the Canning Factories were not satisfactory and directions were given to them to add sufficient quantity of bleaching powder before using it for canning purposes.

The total revenue on this account was Rs. 6,335.50.

7. *Analysis of chemicals required for water treatment.*—During this year 161 samples of chemicals were received for analysis. The details are given in Table VIII.

TABLE VIII
Chemicals analysed during 1966-67

<i>Sl. No.</i>	<i>Particulars</i>	<i>No.</i>
1.	Lime ..	160
2.	Alum ..	1
Total ..		161

The sample of alum was found to be satisfactory. The samples of e received from the Willingdon Water Works, Trivandrum were to contain CaO below 40.0 per cent in the case of 27 samples.

B. FOOD ANALYSIS

This section is mainly concerned with the statutory analysis of food samples sent by the local bodies under the Prevention of Food Adulteration Act, 1954. The other items of work attended to by this section during the year under review were the analysis of hospital diet articles, analysis of miscellaneous samples sent by Government Departments, analysis of samples connected with suspected food poisoning incidents and the analysis of samples sent by private parties including the Tea Board. The last item of the work was done on payment of fees by the parties.

A summary of the work done in this section is given in Table below. The corresponding figures for the two previous years are also furnished for purpose of comparison.

**Summary of work done in the food analysis section during
1965-67, 1965-66 and 1964-65**

Serial No.	Particulars	1966-67		1965-66		1964-65	
		No. of samples received	No. found adulterated	No. of samples received	No. found adulterated	No. of samples received	No. found adulterated
1	2	3	4	5	6	7	8
1	Samples received from local bodies ..	13,509	1,316	11,668	1,763	10,014	2,053
2	Hospital diet articles ..	6,755	1,622	5,398	1,111	4,813	764
3	Miscellaneous samples received from Government Departments ..	16	6	45	34	40	20
4	Samples examined for suspected food poisoning ..	11	..	8	..	23	2
5	Samples received from private parties including Tea Board, Cochin..	64	33	52	14	49	18
	Total ..	20,355	2,977	17,171	2,922	14,939	2,857

From the above Table, it can be seen that the total number of samples examined by the Laboratory increased from 14,939, in-1964-65 to 17,171 in 1965-66 and to 20,355 in 1966-67. This clearly shows that there is steady increase in the work of the laboratory.

Analysis of samples collected under the Prevention of Food Adulteration Act, 1954.

The two Corporations, all the 28 Municipalities, and the Guruvayur Township continued to send food samples for analysis, on the basis of the quota fixed for them.

Irinjalakuda and Kasargod Municipalities did not however complete the minimum quota, fixed.

Out of the 921 Panchayats in the State 775 Panchayats sent samples for analysis. Thirty-six Panchayats, which were sending samples previously did not send samples, during this year.

The quality of all the samples received from the Port of Cochin were satisfactory. Samples received from the Kerala State Electricity Board were found to be suitable for construction purpose and hydro-electric projects. The bacteriological quality of the samples received from the Canning Factories were not satisfactory and directions were given to them to add sufficient quantity of bleaching powder before using it for canning purposes.

The total revenue on this account was Rs. 6,335.50.

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The total revenue on this account was Rs. 6,335-50.

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Out of the 921 Panchayats in the State 775 Panchayats sent samples for analysis. Thirty-six Panchayats, which were sending samples previously did not send samples, during this year.

A District-war statement, showing the number of samples received from the Panchayats in various districts, is given in Table below :

District-war Statement of food samples received from Panchayats

Serial No.	District	No. of Panchayats in the District	No. of Panchayats who have sent samples	No. of samples received
1	2	3	4	5
1	Trivandrum ..	75	42	437
2	Quilon ..	98	77	642
3	Alleppey ..	94	92	996
4	Kottayam ..	89	68	673
5	Ernakulam ..	101	66	706
6	Trichur ..	89	89	984
7	Palghat ..	114	110	1,254
8	Kozhikode ..	147	122	1,237
9	Cannanore ..	114	109	1,070
	Total ..	921	775	7,999

Out of 13,509 samples received for analysis, under the Prevention of Food Adulteration Act, 1954, 5,510 samples were collected from Municipalities and 7,999 samples were collected from Panchayats. Out of the total 1,316 samples, representing 9.7 per cent were found to be adulterated. The extent of adulteration in the samples received from Municipalities and Panchayats were 9.2 per cent and 10.1 per cent respectively.

Details regarding the number of samples received, their nature and the extent of adulteration are furnished separately for the Municipalities and Panchayats in Tables XIII and XIV.

Table below gives a comparative study of the percentage of adulterated samples in the various categories of food articles received from Municipalities and Panchayats during the year.

Statement showing the extent of adulteration in different categories of foods in Municipalities and Panchayats

Nature of articles	Municipality			Panchayats		
	Number received	Number found adulterated	Percentage of adulteration	Number received	Number found adulterated	Percentage of adulteration
1	2	3	4	5	6	7
Milk	619	276	44.6	685	345	50.4
Milk products	104	10	9.6	36	5	13.9
Tea	986	46	4.7	1505	48	3.3
Coffee	308	14	4.5	419	77	18.4
Edible oils and fats	1223	9	0.7	2273	32	1.4
Cereals, grams, etc.	1221	89	7.3	1867	219	11.7
Sweetening agents	119	3	2.5	207	6	2.9
Non-alcoholic beverages	89	14	15.6	42	11	26.2
Miscellaneous	841	44	5.2	965	68	7.0
Total	5510	505	9.2	7999	811	10.1

A brief review of the adulteration in different articles of food is given below.

Milk :—Adulteration is found to be highest in milk samples. Out of a total of 1304 samples received, 505 were found to be adulterated. This shows that 38.7 per cent of the milk samples were adulterated. In the case of samples received from Panchayats, the percentage of adulteration was still higher. More than 50.0 per cent of the milk samples received from Panchayats were found to be adulterated.

Milk products :—Out of 140 milk products received for analysis 15 samples were found to be adulterated. The adulterated samples consisted of 2 samples of butter, 3 samples of ghee, 5 samples of ice cream and 5 samples of other milk products. The adulteration in butter consists of the presence of excess moisture and extraneous fat. Ghee is often found to be adulterated with extraneous fat. Ice cream samples are generally found to be a substandard product prepared from skimmed milk powder, sugar and starch products.

A District-war statement, showing the number of samples received from the Panchayats in various districts, is given in Table below :

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Out of 13,509 samples received for analysis, under the Prevention of Food Adulteration Act, 1954, 5,510 samples were collected from Municipalities and 7,999 samples were collected from Panchayats. Out of the total 1,316 samples, representing 9.7 per cent were found to be adulterated. The extent of adulteration in the samples received from Municipalities and Panchayats were 9.2 per cent and 10.1 per cent respectively.

Details regarding the number of samples received, their nature and the extent of adulteration are furnished separately for the Municipalities and Panchayats in Tables XIII and XIV.

Table below gives a comparative study of the percentage of adulterated samples in the various categories of food articles received from Municipalities and Panchayats during the year:

statement showing the extent of adulteration in various categories of foods in Municipalities and Towns.

Nature of articles	Municipalities			Towns		
	Number collected	Number found adulterated	Percentage of adulteration	Number collected	Number found adulterated	Percentage of adulteration
1	2	3	4	5	6	7
Milk	619	176	28.4	100	15	15.0
Milk products	104	16	15.4	10	2	20.0
Wheat	935	45	4.8	100	10	10.0
Wheat flour	503	12	2.4	100	10	10.0
Edible oils and fats	1223	9	0.7	100	10	10.0
Seeds, grams, etc.	1221	15	1.2	100	10	10.0
Preserving agents	119	1	0.8	100	10	10.0
Non-alcoholic beverages	82	1	1.2	100	10	10.0
Miscellaneous	841	4	0.5	100	10	10.0
Total	5519	265	4.8	100	10	10.0

A brief review of the adulteration in various categories of foods is given below.

Milk:—Adulteration is found in 176 out of 619 samples, or 28.4 per cent. of a total of 1304 samples received. This shows that 57.1 per cent. of the milk samples received were adulterated. In the case of 100 samples, 15 per cent. of adulteration was found. The percentage of adulteration was 15.0 per cent. of the milk samples received from the towns.

Milk products:—Out of 161 samples, 16 were found adulterated, or 10.0 per cent. of the total. This shows that 10.0 per cent. of the milk products received were adulterated. In the case of 10 samples, 2 per cent. of adulteration was found. The percentage of adulteration was 20.0 per cent. of the milk products received from the towns.

Tea :—A total of 2491 samples of tea were received for analysis. Out of this, 94 samples, representing 3·8 per cent were found to be adulterated. Adulteration in tea consists of the addition of powdered tea waste and extraneous materials like powdered gram husk, coffee husk and cashewnut endocarp. Samples of tea infusion received for analysis were found to contain coal-tar dyes and artificial sweeteners, saccharin and Dulcin.

Coffee :—The percentage of adulteration in samples of coffee were found to be higher when compared with the percentage of adulteration in tea samples. Out of 419 samples received from panchayats 77 samples, representing 18·4 per cent were found to be adulterated. 308 samples were received from the various Municipalities in the State. But only 14 samples (4·5 per cent) were found to be adulterated. Total percentage of adulteration was thus 12·5. The adulteration in coffee consists of the addition of roasted and powdered date seed, coffee husk and cereals and grams like wheat and Bengal-gram.

Edible oils and fats :—Samples under this category included common edible oils like coconut oil, gingelly oil and groundnut oil and hydrogenated vegetable oil. Among 3496 samples received in this group, one sample of coconut oil, 24 samples of gingelly oil and 16 samples of groundnut oil were found to be adulterated. Usual type of adulteration is the admixture with cheaper oils.

Cereals, grams and their products :—Samples of cereals like rice, wheat and ragi, grams like black-gram and Bengal-gram, dhalls like toor dhal, Bengal-gram dhal and Attani dhal etc., and their products from this group. The total number of samples received under this category were 3088. Out of these, 308 samples (about 10·0 per cent) were found to be adulterated. The adulteration consists mainly of substitution with lac dhal and its flour in samples like toor dhal, Bengal-gram flour, etc. Samples of dhalls were found to be coated with coal-tar dyes. Samples of wheat flour and arrow root flour were found to contain cheaper flours like tapioca flour.

Sweetening agents :—Samples of honey, sugar and jaggery are included in this group. Only 9 samples out of 326 were found to be adulterated. Common type of adulteration in honey is the addition of artificial invert sugar. Sugar samples collected from hotel and restaurants were found to contain artificial sweeteners, saccharin and Dulcin.

Non-alcoholic beverages :—Carbonated water and various types of soft drinks come under this group. Out of a total of 131 samples received for analysis, 25 samples were found to be adulterated. Most common type of adulteration is the addition of artificial sweeteners, saccharin and Dulcin. Presence of non-permitted coal-tar dyes was also detected in some cases.

Miscellaneous articles :—Samples such as spices and condiments, confectionary, prepared foods, compounded asafoetida, vinegar, etc. have been included in this group. A break up of the miscellaneous articles is given in Table below.

Details of miscellaneous articles

1. 2.	Nature of article	Total No. received	No. found adulterated
	Spices and condiments	872	28
	Confectionary	295	34
	Prepared food	392	28
	Asafoetida	36	7
	Fruit products	13	1
	Vinegar	66	10
	Other food articles	132	4
	Total	1806	112

Among spices and condiments, cumin seeds were generally found to be adulterated with extraneous seeds. Articles such as chillies powder and compounded asafoetida were found to contain coal-tar dyes. Common method of adulteration in confectionaries and fruit products are the addition of artificial sweeteners and non-permitted coal-tar dyes.

(ii) Analysis of hospital diet articles

During the year under review, a total of 6755 samples were received for analysis from the various hospitals in the State. Out of these, 1000 samples were found to be unsatisfactory during the year. The percentage of adulteration in hospital diet articles is steadily increasing.

The number of milk samples received for analysis, showed a significant increase during this year. The total number of milk samples received from the various hospitals in the State during the year was 3049 against 2391 samples during 1965-66 and 1362 during 1964-65.

The percentage of unsatisfactory milk samples showed a slight increase. During the year under review, 37.9 per cent of the milk samples were found to be unsatisfactory. The corresponding percentage of unsatisfactory milk samples during 1965-66, 1964-65 were 34.9 and 36.1 respectively.

Apart from milk, the other diet articles which were found to be adulterated were milk products and dhall. Few samples of dhall supplied to hospitals are found to be prohibited Kesari dhall, the

consumption of which is injurious to health. Details regarding the number and nature of the various diet articles analysed are furnished in Table XV appended.

(iii) Analysis of samples received from Government Departments

During the year under review, 23 samples were received for analysis from the various Government Departments. One sample of milk powder was received for analysis from the Indian Red Cross Society, Trivandrum. Six samples of compounded asafoetida were received from the Director, Central Food Laboratory, Calcutta, for collaborative studies. The details of the samples received are furnished in Table below:—

Details of samples received from Government Departments

<i>Sl. No.</i>	<i>From whom received</i>	<i>Nature of samples</i>	<i>No. of samples received</i>	<i>No. found unsatisfactory</i>
(1)	(2)	(3)	(4)	(5)
1.	The Secretary, Board of Revenue, Trivandrum	"Kasakasa"	1	..
2.	The Director of Health Services, Trivandrum	Strained Chicken	1	..
3.	Warden, Engineering College Hostel, Trivandrum	Milk	3	3
4.	The Ayurveda College Hospital, Trivandrum	Coconut oil	1	..
	Do.	Gingelly oil	1	..
	Do.	Ghec	1	..
	Do.	Castor oil	1	..
5.	Ayurveda College Hospital, Trippunithura	Milk	1	1
6.	Port Health Officer, Cochin	Blended food product	1	..
7.	Sub Magistrate, Kozhikode	Tincture Zingiberis	1	..
8.	Assistant Educational Officer, Pattambi	Milk Powder	1	1
9.	Taluk Supply Officer, Ponnani	Rice	3	1
10.	Indian Red Cross Society, Trivandrum	Milk Powder	1	..
11.	Director, Central Food Laboratory, Calcutta	Compounded Asafoetida	6	..
Total		..	23	6

(iv) Samples examined for suspected food poisoning

During the year, 11 samples were received for examination for suspected food poisoning. The details of the samples are given in table below. None of the samples showed any chemical or bacterial contamination responsible for causing food poisoning.

Details of samples examined for suspected food poisoning

Sl. No.	From whom received	Nature of samples	No. of samples received	No. found satisfactory
(1)	(2)	(3)	(4)	(5)
1.	Camp Officer, Basic Training School, Manacud, Trivandrum	Maida flour	1	..
2.	The Medical Officer-in-charge, Primary Health Centre, Soornad	Tea dust	1	..
	Do.	Sugar	1	..
	Do.	Waste of tea (spent tea)	1	..
3.	Medical Officer, Primary Health Centre, Thura-voor	Uncooked rice	2	..
	Do.	Cooked rice	1	..
4.	The District Medical Officer of Health, Trichur	Rice	1	..
5.	The Food Inspector, Cannanore Municipality, Cannanore	Maida flour	1	..
	Do.	Maida flour	1	..
		Soaked water		..
	Do.	Prepared food	1	..
Total			11	..

(v) Analysis of samples sent by private parties including the Tea Board, Cochin

During the year under review, 62 samples were received for analysis from private parties. An amount of Rs. 1,205 has been received as fee for analysis of these samples.

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Board, Cochin.

The details regarding the samples received from private parties are given in table below.

Details of samples received from private parties

<i>Sl. No.</i>	<i>From whom received</i>	<i>Nature of sample</i>	<i>No. of samples received</i>	<i>No. found unsatisfactory</i>
(1)	(2)	(3)	(4)	(5)
1.	Smt. M. G. Panky Amma, Additional First Class Magistrate, Shertallai	Bengal gram flour	1	..
2.	M/s Joseph Mathew and Co., Wholesale Tea Dealers, Kottayam	Tea dust	6	2
3.	M/s Sree Hanuman Trading Co., Alleppey	Black pepper	1	1
4.	Sri T. A. Bava, Ayyankunnam House, Alwaye	Chicory	2	..
5.	M/s Anjarakandy Essential Oil and Co., Brown's Cinnamon Estate, Anjarakandy, Cannanore District	Cinnamon leaf oil	1	..
6.	The Joint Controller of Licensing, Tea Board, Cochin	Tea	11	10
7.	Sri A. Sankarasubbu and Co., Raniavarmapuram, Nagercoil	Compounded Asafoetida	1	..
8.	Sri K. Viswanathan Chettiyar, Mettupalayam, Kolangode, Palghat	Tea	1	..
9.	Sri K. K. Kurian, Thonipurakkal House, Pulimode Junction, Kottayam	Milk	2	..
10.	Sri K. Subramony Iyer, Alleppey	Cow's milk	1	1
11.	The Secretary, South India Asafoetida Merchant's Association, Madras	Compounded Asafoetida	15	13
12.	Sri H. Jacob, Kalluthara Veedu, Cheruvarakona, Parassala P.O.	Bread	1	..
13.	The Secretary to the Administrator, Union Territory Laccadives, Kozhikode	Wreck	1	..

<i>Sl. No.</i>	<i>From whom received</i>	<i>Nature of sample</i>	<i>No. of samples received</i>	<i>No. found unsatisfactory</i>
(1)	(2)	(3)	(4)	(5)
14.	Sri T. M. Talwar, Talwar Buildings, Ludhiana	Compounded Asafoetida	5	4
15.	Sri A. Srinivasa Pai, Chalai, Trivandrum-1	Tea Dust	1	..
16.	Sri T. S. V. Ramanan, Thondikulam Village, Palghat	Turmeric powder	1	..
17.	Sri M. E. Sulaiman Kunju, Thaiparambil, Alleppey	Milk	1	1
18.	Sri C. P. Mohamed Kunhi, South India Coffee Works, Cannanore-5	Coffee powder	1	..
.	The Divisional Superintendent, Southern Railway, Olavakkot	Pearl Barley	1	..
.	Sri P. H. Raman, Tea Merchant, Palghat	Chicory	1	..
.	The Superintendent, Food Storage Department, Food Corporation of India, Trichur-4	Wheat (Maida)	4	..
.	S. P. Centre Stores, Trivandrum	Bengal gram flour	1	..
1.	Sri P. K. Krishnan, Pulickal House, Ernakulam	Turmeric	1	..
1.	N. S. Muthaiya and Sons, Madura-1	Compounded Asafoetida	1	..
Total			62	32

Proceedings launched in connection with adulteration
and 237 cases ended in acquittal. An amount of Rs. 1,87,923
has been realised on the 161. Number of
Municipi-

A statement showing the number of convictions and the fine imposed during 1965-67 and the previous two years is furnished in Table below:

Statement of convictions and fines

Year	No. of convictions	Total fines Rs.	Average fine Rs.
1964-65	1537	1,51,991	86
1965-66	1103	1,52,129	137
1966-67	1153	1,87,923	161

Revenue to Government.—An amount of Rs. 1,265 was received towards fee for analysis of food samples sent by private parties including the Tea Board, Cochin. Demands for a total amount of Rs. 77,945 were sent to various local bodies towards fee for statutory analysis of food samples sent by them.

The revenue to Government by way of share of fines imposed in food adulteration cases is Rs. 93,961.

The total revenue to Government is as shown below :

	Rs.
1. Fee for statutory analysis of food samples ..	77,945-00
2. Share of fines due to the credit of Government ..	93,961-50
3. Fee for the analysis of samples sent by private parties ..	1,265-00
Total ..	1,73,191-50

Teaching.—The Chief Government Analyst and the Government Analyst gave lectures in Public Health Chemistry for the D.P.H. Course in the Trivandrum Medical College. Classes were also conducted for the Health Inspector trainees from Trivandrum Medical College.

The students of the Medical College, Trivandrum and the students of the Home Science M.Sc. course at St. Theresa's College, Ernakulam and S.N. College, Quilon paid study visits to the laboratory.

Meeting.—The Chief Government Analyst attended the 12th meeting of the Central Committee for Food Standards held at New Delhi.

Attendance of Public Analysts at Court.—The Chief Government Analyst, Government Analyst and Deputy Government Analyst attended the courts to give evidence in a total number of 17 cases filed under the Prevention of Food Adulteration Act, 1954.

Important Government Orders for the better implementation of the Prevention of Food Adulteration Act

1. G.O. (MS) 901/66/HLD, dated 9th December 1966.—Government have sanctioned 35 posts of full-time Food Inspectors for

the effective enforcement of the Prevention of Food Adulteration Act, 1954. There will be 20-30 Panchayats under one Food Inspector. These Food Inspectors will be responsible for the effective implementation of the Prevention of Food Adulteration Act, within their respective jurisdictions.

Regional Food Inspector's posts were also sanctioned for the effective supervision of the work of the Food Inspectors.

One post of Technical Assistant in the grade of the Regional Food Inspector has been sanctioned for the Headquarters office at Trivandrum.

Government have also sanctioned necessary office staff for the offices of the Food Inspectors, Regional Food Inspectors and Food Administration section of the Directorate of Health Services.

Government order, the Panchayat has to remit the fee for analysis of the full quota of samples to the Public Analyst at the beginning of the year and to intimate the fact to the District Medical Officer of Health, District Panchayat Officer and the Food Inspector. The Panchayat may send quarterly reports to the District Medical Officer of Health and District Panchayat Officer stating the position regarding the collection of samples. The District Medical Officer of Health will give suitable instructions to the Food Inspectors and the District Panchayat Officer to the Panchayats. At the end of the year, if the full quota is not collected due to the non-co-operation of the Panchayat, the Food Inspector will report to the District Medical Officer of Health, the District Panchayat Officer and the Executive Officer, the Panchayat. If the quota is not collected due to the non-co-operation of the Panchayat, from the Panchayats, the Executive Officer should be made responsible to make good the loss.

3. G.O.Rt. 4080/66/HLD, dated 19th November 1966.— This Government order lays down the procedure to be followed by the Panchayats for remitting the fee for analysis of food samples. The procedure is as follows :

Every year, the demand on the basis of the quota fixed, will be sent by the Public Analyst to the Local Bodies. The Local Bodies should remit the amount within 2 months from the date of receipt of the demand.

All demands for which chalans have not been received till 30th June of the succeeding year will be deemed as not paid and will be sent to Government by the Public Analyst. The Local Body will be sent to Government by the Public Analyst any grant payable to the Local body.

Instructions by the Food (Health) Authority.—The Director of Health Services in his capacity as Food (Health) Authority issued the following circulars for the better implementation of the Prevention of Food Adulteration Act, in the State.

1. *Circular No. FDA1-27647/66/DHS, dated 5th April 1966.*—This letter has been sent to the Municipal Commissioners and Health Officers to instruct the Food Inspectors under them, to educate the manufacturers, wholesalers and retailers of food about the importance of section 14 of the Amended Act. The Food Inspectors were requested to see that the provisions contained in section 14 are strictly enforced.

2. *FDA1-89332/66/DHS, dated 25th August 1966.*—This Circular Memorandum has been sent to all the Food Inspectors instructing them to carry out more vigorous inspections and sampling work from Consumer Co-operative Stores as well.

3. *FDA1-23882/66/DHS, dated 28th August 1966.*—In this letter the Director of Health Services has stated that many Panchayats are claiming recoupment of loss incurred by them due to non-completion of quota by the Health Inspectors. The District Medical Officers of Health were therefore requested to take up the matter promptly at district level and to instruct the Food Inspectors to do everything possible to collect samples regularly and complete the quota in time.

4. *FDA1-68974/66/DHS, dated 13th April 1967.*—This circular containing detailed instructions to the full-time Food Inspectors to start inspection and sampling work regularly from 1st April 1967. Regarding Panchayats which have not yet started collection of food samples, the Food Inspectors are requested to contact the Panchayat authorities and see that sampling work is started as early as possible, so that from 1st July 1967 there may not be any Panchayat in the State from where samples are not being collected.

Instructions were also issued regarding the filing of prosecutions and sending monthly returns to the authorities concerned.

A separate set of instructions were issued to the District Medical Officers also. They were asked to note that the enforcement of the Prevention of Food Adulteration Act will hereafter be the responsibility of the full-time Food Inspectors appointed in the Department. The District Medical Officers were requested to provide all facilities to these Food Inspectors for proper working.

5. *FD 11-68974/66/DHS, dated 10th July 1967.*—In this circular the Director of Health Services has furnished a summary of the discussions with District Medical Officers of Health and the Food Inspectors of various districts. Suitable instructions, on the basis of these discussions, were also issued from the Directorate for the proper working of the Prevention of Food Adulteration Act and rules.

6. *Endt. on FDAI-140465/66, dated 27th June 1967.*—This letter, which is circulated to all District Medical Officers of Health and Food Inspectors is a copy of letter No. 81750/D2/66/HLD, dated 4th June 1967 from the Health and Labour Department to the President, Parli Panchayat.

It has been stated in the letter that the Executive Officer of the Panchayat cannot interfere with the work of Food Inspectors in the matter of inspection and sampling. But the Executive Officer can give any suggestion in writing, which will be attended to by the Food Inspector. The Food Inspector is also requested to inform the Executive Officer all action taken by him in the Panchayat area, under the Prevention of Food Adulteration Act, by the 10th of the succeeding month.

7. *FDAI-89332/66/DHS, dated 22nd May 1967.*—This circular contains certain instructions to the Food Inspectors on the basis of the decisions taken by Government at a conference held on 13th February 1967. It has been decided that there should not be any distinction in the matter of collection of samples from Co-operative Stores as distinct from other traders. But in the case of adulterated samples from Co-operative Stores, it was decided only against the society as a persons like the Secretary. any other officer is directly involved in such adulteration, it was decided to intimate the fact to the Registrar of Co-operative Societies, who will take appropriate Departmental action in the matter.

Important decisions of the Kerala High Court in food adulteration cases

1. *Grl. R.P. No. 141 of 1966*.*—In C.C. 177 of 1966, the District Magistrate, Trichur sentenced the accused to undergo Rigorous Imprisonment for 1 year and to pay a fine of Rs. 2,000 for storage and sale of Toor dhal which contained non-permitted coal-tar dye. On appeal, the Sessions Judge, Trichur reduced the sentence to 3 months Rigorous Imprisonment and a fine of Rs. 500. This Criminal Revision Petition was filed by the accused against the above decision.

The following are some of the important points decided in this judgment, by the High Court:

(i) *Non-compliance of section 10 (7) of the Act.*—The Court held that the provisions contained in section 10 (7) of the Act are mandatory, and they are intended for the protection of the citizen from any false charge being levelled against him and to ensure that the Food Inspector acts properly and section 10 (7) of the Inspector, but it by him liable to a more careful scrutiny by the Court.

*Published in 1967 K.L.T. 290.

Regarding the decision in CrI.R.P. No. 453 of 1965 (Reported in 1966 K.L.T. 788) the Court has observed as follows:—

“A close reading of this decision shows that it is not in any manner inconsistent with the earlier decisions of this Court on this question. All that His Lordship said was that the direction in section 10 (7) of the Act was mandatory. He has not held that the non-compliance of this provision would vitiate the action taken by the Food Inspector, on the other hand His Lordship examined the prosecution evidence in the background that the Food Inspector failed to comply with the mandate contained in the above section of the Act, and came to the conclusion that it was not worthy of credit, and that the guilt of the accused could not be said to have been established beyond reasonable doubt.”

Referring to the contention in the above judgment that the witnesses concerned must be persons unconnected with trade in articles of food Honourable Justice Mr. M. U. Issaac has observed as follows:—

“I have no doubt that His Lordship’s observation in that decision that persons connected with trade in articles of food would not be independent witnesses, was not intended as a general proposition of law, but was made with reference to the particular facts and circumstances of that case.”

(ii) *Non-compliance of Rule 7 by the Public Analyst and Rules 17 and 18 by the Food Inspector.*—Another contention of the petitioners learned counsel in the above case was that there was no evidence that the Public Analyst has complied with the requirements of Rule 7 and the Food Inspector has complied with the requirements of Rules 17 and 18 and that in the absence of such evidences, the report of the Public Analyst could not be acted upon.

Against this contention, the Court has relied on the judgment by Smt. Justice Anna Chandy in *State of Kerala v. Ramakrishnan Nair* in which it has been stated as follows:

“Under section 114 1) of the Evidence Act, the Court may presume that official acts have been regularly performed. When the Food Inspector was in the box it was not suggested to him that he did not forward the specimen seal. There is the report of the Analyst that the seals were found intact and it has to be presumed that he compared the seal with the specimen seal. He could not certify to that effect without making himself sure that there was no tampering of any sort in the seal. As observed by the Allahabad High Court in *Municipal Board, Faizabad v. Lal Chand*, if the accused wanted to challenge the fact or establish that the sample sent for analysis was tampered with, it was open to him to send the sample with him for analysis as provided in section 13 of the Act. This decision has been followed by this Court in C.R.P. 41 of 1964 where a similar objection was taken and repelled.”

(iii) *Addition of non-permitted coal-tar dye—quantity need not be stated.*—Wherever non-permitted coal-tar dye is present in a sample, it is not necessary that the quantity be mentioned, since the very use of

the dye is prohibited. There is also no necessity to state the sort of examination made nor the method by which the results are given.

The revision petition was dismissed.

2. *Crl. R.P. No. 33 of 1966.*—In C.C. 307/65 of the First Class Magistrate's Court, Punalur, the accused was convicted to undergo Simple Imprisonment for six months and to pay a fine of Rs. 1,000 for
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 petition was

filed by the accused against this decision.

The conviction was challenged on grounds:

(i) There was no proper sanction to initiate the prosecution.

(ii) The charge is under 1954 Act, but the conviction has been entered under the amended Act of 1964.

Regarding point No. 1 the Court held that the sanction accorded by the Panchayat resolution passed on 16th February 1965 was perfectly in order and it was a sufficient compliance of section 20.

On the second point it was argued that in so far as the offence was committed after the coming into force of the amended Act, the prosecution ought to have been initiated under that Act and not under the Act of 1954.

Regarding this point, the court held that the parent Act which is still in force is Act 37 of 1954 and it was by way of an amendment of the said Act, that Act 49 of 1964 was passed and hence prosecution will have to be launched under Act 37 of 1954 as amended by Act, 49 of 1964, as has been done in the present case.

The Revision Petition was dismissed.

3. *Crl.R.P. 41 of 1966.*—The accused in C.C. 105/65 of the District Magistrate of Alleppey was convicted to undergo Simple Imprisonment for one year and to pay a fine of Rs. 2,000 for the possession of adulterated tea decoction for sale. On appeal before the Sessions Judge, Alleppey, the conviction and sentence were confirmed. Hence this Revision Petition was filed by the accused.

Before the appellate court, the accused moved an application requesting that the sample under his custody may be allowed to be sent to the Central Food Laboratory for analysis. This was refused by the Judge on two grounds.

(i) It is in the nature of letting in fresh evidence in the appellate court, which in the circumstances of the case, cannot be permitted.

(ii) The accused had enough opportunity in the trial court itself to avail himself of this benefit.

Against these points, the High Court held that sending a sample to the Central Food Laboratory for analysis is

adducing evidence. Section 13 confers right on the accused to demonstrate to the Court that the report of the Public Analyst is unreliable and it is incorrect to say that it is adducing evidence. The accused or complainant can exercise that right at any stage of the proceedings as the section itself would point out.

The conviction and sentence of the lower courts were set aside and the case was remanded to the lower appellate court for a fresh hearing after giving the accused an opportunity to get the sample analysed by the Central Food Laboratory.

4. *Crl. A. No. 181 of 1966*.—The accused in C.C. 308/65 of the First Class Magistrate's Court, Punalur was convicted to undergo Rigorous Imprisonment for 6 months and to pay a fine of Rs. 1,000.

On appeal before the Sessions Judge of Quilon, the conviction was set aside on the ground that the Food Inspector had not the requisite sanction under section 20 (1) of the Act. The Sessions Judge held that the authorisation given by the Panchayat was not sufficient because in conferring the authority on the Food Inspector, it was necessary to specify the person to be prosecuted and the offence for which prosecution has to be launched.

Against the above decision of the Sessions Court, Criminal Appeal No. 181 of 1966 was filed in the High Court. The High Court held that the learned Judge has confused between the 1st part and the second part of section 20. The prosecutions contemplated in the 1st part are the prosecutions directly initiated by the local authority. Only in the second part, the question of transferring the authority would come, and then only, the name of the accused and the offence need be specifically stated. Hence it was held that the general authorisation given by the Panchayat was quite sufficient in the matter.

The judgment of the Sessions Court was set aside and the case was remanded to the Sessions Judge for disposal according to law.

5. *Crl. R.P. No. 4 of 1966*.—This Revision Petition was filed by the 1st accused in C.C. 10 of 1964 on the file of the Additional First Class Magistrate of Ernakulam. The case against the accused was that he sold adulterated milk through his servant (second accused in this case). The sample was taken from the second accused. During the course of sampling, the 1st accused appeared and stated that the milk belonged to him, and it was he, who had entrusted it to the second accused. The Food Inspector has recorded his statement at the bottom of the mahazar and that was signed by the 1st accused. But he denied all these charges in Court. The learned Magistrate has convicted him and sentenced to undergo Rigorous Imprisonment for one year and to pay a fine of Rs. 2,000, mainly on the basis of the endorsement and the confessional statement made by the second accused. This conviction was confirmed by the Sessions Judge of Ernakulam.

The High Court considered this question in *Crl. R.P. No. 4 of 1966* and came to the conclusion that the case against the accused are

- (i) the endorsement said to have been given by the 1st accused and
 (ii) the confessional statement made by the second accused.

Regarding the first item of evidence, the Court found that the endorsement was not made by the first accused. The signature on the entry

was found to be different from the signature affixed by him in the 342 statement and in the vakalath. Also the endorsement was found to be unattested.

It was seen to be a copy of the original. In view of these facts, the Court held that the confession of a

co-accused can be invoked only to give additional strength or added assurance to the other items of evidences. But in this case, there is no other item of evidence to connect the first accused with the offence. As the result, the first accused was acquitted.

6. Cr. A. 94/1966.—The Food Inspector, Tellicherry Municipality prosecuted the accused in the District Magistrate Court, Tellicherry. After a few adjournments the case was transferred to the Additional First Class Magistrate Court, Tellicherry. In the District Magistrate Court, the accused pleaded not guilty. But in the Additional First Class Magistrate Court, the accused gave petition that he might be permitted to plead guilty. The Court did not grant permission and proceeded with the trial. The Food Inspector who is the complainant was not present for the trial. The Court acquitted the accused though the advocate for the prosecution moved for an adjournment of the case, since the Food Inspector had to attend a conference of the Health Inspectors.

The Kerala High Court held that the lower court has not judiciously exercised the discretion. The lower court ought to have granted the prayer for adjournment. The case was sent back for a fresh trial.

7. Cr. R.P. No. 329/66 and Calendar Revision No. 11 of 1967.—These two cases came before the High Court in revision under section 439 of the Cr. P.C.

The Sub Divisional Magistrate, Hosdurg convicted accused 1 and 2 in C.C. No. 179/65, under section 16 (1) (a) of the Act read with sections 7 and 2 (1) (a) of the Act, and sentenced each of them to undergo imprisonment for six months and to pay a fine of Rs. 1,000 and in default of paying the fine to undergo three months Simple Imprisonment for storage and sale of prohibited Kesari dhall.

The shop belonged to A-1 and the sale was effected by A-2 who was then in charge of the shop.

Both the accused filed a joint appeal as Cr. A. 100 of 1967 in the Sessions Court, Tellicherry. The Judge convicted

sentence was reduced to one month's Simple Imprisonment and a fine of Rs. 100. A-2 was acquitted.

A-1 filed C.R.P. No. 329/1966 in the High Court against the above sentence. The High Court held that there was no necessity to interfere with the concurrent findings of the lower courts. But the Court also held that the offence committed by A-1 fell under section 16 (1) (a) (1) of the Act and it did not fall under first proviso of section 16 (1) and hence the penalty provided for is imprisonment for a minimum term of six months and a fine of not less than Rs. 1,000. Regarding A-2, the Court held that the decision of the Sessions Judge was not correct. Hence notice was served on A-1 to show cause why his sentence should not be enhanced and on A-2 to show cause why his acquittal should not be set aside, and retrial ordered. The learned counsel for the accused contended that there is no evidence to show that P.W. 1 has the authority to prosecute the accused under section 20 of the Act. The Court repelled the contention holding that it can take judicial notice under section 57 of the Evidence Act the notifications in the matter published by the Government.

On behalf of both the accused, it was pointed out that the charge against the accused was misleading and confusing and so the conviction should be quashed. The charge was under sections 16 (1) (a) and 7 read with section 2 (1) (a) of the Prevention of Food Adulteration Act, 1954. The case is that the accused sold lac dhall in the name of toor dhall. It came under clause (b) of section 2 (1) of the Act. The sale of lac dhall is prohibited under Rule 44 of the Prevention of Food Adulteration Rules. The dhall is adulterated under clause (a) of section 2 (1) of the Act and it is also misbranded under clauses (c) of section 2 (ix). All these things are offences under section 7 of the Act and punishable under section 16 (i) (a). Hence the contention was repelled. The High Court held that the Sessions Court has violated the statutory provisions by reducing the sentences of the trial Court and hence restored the sentence awarded by the trial Court to accused 1.

On behalf of A-2, it was contended that the Court of revision has no grounds to interfere with the order of acquittal passed by the learned Sessions Judge. The Supreme Court has ruled that the power in revision to set aside an order of acquittal and direct retrial should be exercised only in exceptional cases. In this case, the High Court held that the Sessions Court has not looked into important material evidences adduced against the accused A-2 and that it is also vitiated by irrelevant and extraneous considerations. In the result, the case was remitted back to the Sessions Court and the Sessions Judge was asked to rehear the appeal and dispose of the same according to law.

8. *Crl. R. P. No. 127/66 published in 1967 K.L.T. 577.*—The Sub Divisional Magistrate, Hosdrug convicted and sentenced the accused in C.C. 172 of 1965 to undergo Simple Imprisonment for 6 months and

to pay a fine of Rs. 1,000 for storage and sale of prohibited Kesari dhal. The Sessions Judge confirmed the conviction and sentence on appeal. This Criminal Revision Petition was filed by the accused against the order.

The main point decided in this case relates to Government notification authorising the Food Inspectors under section 20 of the Act to launch prosecutions under the Act.

The contention of the accused that it has not been established that P. W. 1 is a Food Inspector appointed for the Muliya Panchayat and hence the action taken by him is invalid was repelled by the Court.

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ing Food Inspectors under section 9 of the Act had been produced. Being not certain whether there may not be a notification declaring Muliya Panchayat as a "Local area", the Court did not want to pronounce on this point. This point has been subsequently decided by a Division Bench of the Kerala High Court in Cr. R P 85 of 1966.

The next contention of the accused was that the complaint instituted by the Food Inspector is bad, as there is no evidence in the case that the Food Inspector (P. W. 1 in the case) is a person competent to institute such a complaint under section 20 (1) of the Act.

According to the prosecution, on the basis of notification No. 39558/59/HLD, dated 7th September 1959, (published in Kerala Gazette dated 29th September 1959), the Food Inspector is a person duly authorised by the State Government to institute prosecutions under the Act. The counsel for the petitioners raised two objections.

(i) The notification has not been produced in Court and marked as exhibit.

(ii) The Panchayat concerned was itself constituted in 1964 and the notification issued in 1959, cannot apply to the Food Inspector of a Panchayat which did not then exist.

Regarding point No. 1 the High Court has relied on the judgment reported in A.I.R. 1960 Patna 243. In this judgment it has been stated as follows:—

"Under
dence Act] judic
particular indiv
Official Gazette
for inspection of the Court at the time of the argument in the Original,
Appellate or Revisional Court, just as the law can be perused at any
stage under sub-section (1). It is obviously unneces or ro
secution to put a copy of the relevant notification
case as an exhibit."

The Court agreed with the above decision and held that the argument, that the notification under section 20 (1) of the Act cannot be acted upon, cannot succeed in this case.

Regarding point No. 2, the Court held that according to the notification issued in 1959, only the "Food Inspectors appointed under the Act" are authorised to institute prosecutions under the Act. The notification is not in favour of Food Inspectors to be appointed subsequently. Since the Panchayat in question came into existence only after the issue of the notification i.e. in 1961, the Court held that the notification does not entitle the Food Inspector to institute prosecutions under the Act.

The revision petitioner was allowed.

9. *Crl.R. P. No. 85/1966.*—In C. C. No. 142/65 of the Additional 1st Class Magistrate's Court, Karunagapally, the accused was convicted and sentenced to undergo 6 months' Rigorous Imprisonment and to pay a fine of Rs 1,000. Against this decision, the accused filed an appeal before the Sessions Judge. But the appeal was dismissed by the Sessions Judge and hence this Revision Petition came before the High Court.

This Revision Petition was heard and orders passed by a Division Bench of the High Court.

The contention of the petitioner was that the proceedings taken by the Food Inspector were bad since there were no notifications as enjoined by section 2 (ii) and section 9 (1) of the Prevention of Food Adulteration Act.

Against this contention, the Court held that the notification published by Government on 27th July 1964, will satisfy the requirements of law. The purpose of a notification under section 2 (vii) is to define the local area for the purpose of the Act. The Court held that the lack of a separate notification under section 2 (vii) is not fatal to the prosecution. The notification dated 27th July 1964 will invest the Food Inspector with authority to function as Food Inspector within the Panchayat area and that area can be ascertained by the notification constituting the Panchayat.

Another argument raised by the petitioner was that P. W. 3 in this case is a sweeper attached to the Panchayat Office and hence he is under the influence of the Food Inspector and thus the requirements of section 10 (7) are not complied with. Against this argument also, the Court held that since both the lower Courts were not satisfied that this argument was a sufficient ground for disbelieving the witness, the argument was held to be without any merit.

The Revision Petition was dismissed.

10. *Crl. Appeal No. 570/1966.*—This appeal was filed by the Food Inspector, Calicut Corporation against the acquittal in C.C. 242/65 of

the District Magistrate's Court, Kozhikode. The acquittal was based on two reasons.

(i) The Food Inspector had not observed the provisions of section 10 (7) of the Act and that no independent witness was called to be present at the time of sampling.

(ii) There was no evidence to show that accused 2 and 3 are the managing partners of the firm.

The appeal came before a Division Bench in Kerala High Court.

Regarding point No. 1, the court held that if the evidence adduced at the time of trial is sufficient and reliable for the court to come to the conclusion that the action of the Food Inspector was regular, the fact that no independent witness was called to be present at the time of action should have an adverse consequence on the case. Hence it was concluded that the action of the learned Magistrate in acquitting the accused on the ground that the persons called to be present at the time of sampling were not independent, was not justified.

Referring to the judgment in *Subramonian Chettiar v. Food Inspector* (1966 K.L.T. 783) court has observed as follows :

"Although we agree that the Food Inspector must call independent persons to be present at the time of action, we think it is not possible to lay down any hard and fast rule as to what class of persons will be independent. We find it difficult to characterise all persons belonging to or connected with trade in articles of food as dependants or under the influence of the Food Inspector, and unqualified to be witnesses to the action of the Food Inspector. It will be too much to assume that because the Food Inspector can take action under the Act, against person dealing in articles of food, all persons connected with the trade in food would be dependants of the Food Inspector."

The Court accordingly come to the conclusion that because an

Reference has also been made to the Division Bench decision in Crl. Appeal Nos. 92, 112 and 114 of 1960, where justice Smt. Anna Chandy has said that section 10 (7) is mandatory. The mandatory nature of the section has been inferred from the use of the word 'shall', as ordinarily it connotes a mandate. Referring to this inference of the learned Judge, the Division Bench has contended that the object of enacting section 10 (7) is evidentiary in character. The purpose is to secure evidence of independent persons to the action of the Food Inspector. There is nothing inconsistent in saying that the legislative

were present, provided there is evidence worthy of acceptance by the court to the effect that the action of the Food Inspector is in accordance with law.

In this connection the court has also relied on the judgment by Justice Govinda Menon in *Food Inspector v. Kannan* [1965 M.L.J. (Crl.) 335] where it has been concluded that non-compliance with section 10 (7) was only an irregularity.

Regarding point No. 2, the court held that the Magistrate has overlooked some of the evidence furnished by Exts. P-7 and P-8. Document P-8, if properly proved, may furnish valuable evidence on this question.

In the circumstances, the acquittal was set aside and a retrial of the case was ordered.

11. *Crl. R.P. No. 2 of 1967*.—In C.G. No. 270/66 of the Additional 1st Class Magistrate's Court, Trivandrum, the accused was convicted and sentenced to pay a fine of Rs. 200 for the sale of adulterated ice cream. This Revision Petition was filed by the Food Inspector, Trivandrum Corporation and was heard by a Division Bench of the Kerala High Court. The High Court examined the question as to whether a Court is competent under the proviso to section 16 of the Prevention of Food Adulteration Act, to award a sentence of fine alone of less than Rs. 1,000. In the Additional 1st Class Magistrate Court, a fine alone of Rs. 200 had been imposed and the reason for taking a lenient view was stated in the judgment.

But the High Court held that a Court is not competent to award a sentence of fine alone of less than Rs. 1,000; even granting that there are adequate and compelling reasons to justify a lenient view. It is held that on a close scrutiny of the proviso to section 16, it will be clear that this is not what is intended by the proviso. By the proviso it is only meant that in appropriate cases, the court shall have the power to award a sentence of imprisonment and fine less than the minimum prescribed in the section. According to the enacting clause, the punishment shall always take the form of imprisonment with fine. Since this is the legislative intent of the enacting section, this cannot be deemed to have been taken away and the punishment made disjunctive by the proviso.

In the proviso, the types of offences for which the court is given the power to go below the minimum punishment has been categorised. In these cases, the court can go below the minimum punishment, provided there are adequate and special reasons for the same. At the same time, the court has to keep in view the legislative intent of the enacting section. Here the court has established that by means of a proviso, the cardinal purpose of the clause must not be lost sight of. A proviso has always to be considered in relation to the main enactment and should not be permitted to swallow up the enactment itself. Since

the sentence intended to be awarded by the clause is of a conjunctive nature, this purpose cannot be allowed to be defeated by providing a disjunctive punishment according to the proviso. Hence the High Court held as follows:

"The result is that for adequate and special reasons to be mentioned in the judgment, the court may award a sentence of imprisonment for less than six months and a fine of not less than Rs. 1,000 or imprisonment for a term not less than six months and a fine of less than Rs. 1,000 or of both imprisonment for a term of less than six months and a fine of less than Rs. 1,000."

According to this, the court has to impose imprisonment also along with fine.

The sentence of the lower court was set aside and the case was remanded for retrial.

For Director of Health Services.

CHAPTER X

STATE HEALTH EDUCATION BUREAU

The State Health Education Bureau continued to function during the period under the direct control of Dr. R. Subramaniam, Assistant Director of Health Services (HE). The Administrative Unit at the Headquarters guided the Field Units and the Field Study Demonstration Centre in their activities and worked in co-operation with other important Health Programmes.

Media Division

Editorial Section.—A health journal titled "Sunlight" was brought out by the section and two issues released. The publication of the departmental news letter also continued. Four posters, four folders, one booklet, and one pamphlet were published and distributed. The section also assisted other programmes by providing write-ups, radio talks, etc., as required.

Art and Photography Section.—The art section prepared designs for the publications and drafts for posters released by the Bureau. It also assisted other programmes by providing designs, maps, charts, etc., for their use. The photographic section covered important programmes and celebrations.

Other activities.—Important celebrations like Independence Day, Anti-Air Week, Children's Day, etc. were suitably covered by publishing posters and folders, conducting public meetings, etc.

The section organised and suitably covered the State Level Senior Officers' Conference. Session bulletins were brought out by the Bureau at the conference. A State level working group on Health Education was constituted to study the various aspects of Health Education in the State and develop proposals for consideration by the inter-country workshop proposed by the W.H.O.

A media committee was constituted to preview films and other usual aids and recommend their purchase by the Bureau.

The division also took initiative to organise a State Branch of the Indian Public Health Association.

The Media Division organised their important exhibitions and also participated along with other States in the exhibition organised by the Central Health Education Bureau at Bangalore in connection with the Fifth All India Health Education Conference. A set of exhibition materials was produced for the Leprosy Control Programme. The section also assisted other programmes and institutions by lending audio-visual equipments and educational aids like films.

Library.—The library attached to the Health Education Bureau was separated and an independent hall provided for its smooth functioning. Altogether 33 books were purchased and 23 received free. 107 journals were subscribed and 48 received free. During the year 1301 persons availed of the library facilities.

Field units.—The field units continued their activities in connection with the Intensive Health Education Programme. The work on the project was pushed ahead in co-operation with the regular Public Health Staff and Panchayat and Community Development Organisations.

The units assisted other important programmes by organising film-shows, group discussions and participating in important celebrations and drives like the Small-pox Eradication Week, Family Planning Fortnight, etc.

These units also participated in training programmes organised for Public Health Staff and community workers. Several exhibitions were organised by the field units in the various districts.

Field Study Demonstration Centre

The unit continued its activities on the Demonstration and Study Programme on Environmental Sanitation. The 1st phase of educational effort was completed and a concurrent evaluation started.

Another study programme on nutrition under controlled situation was organised and preliminary steps taken.

Three village level exhibitions were organised as part of the Demonstration and Study Programme on Environmental Sanitation.

A quarterly news letter "F.S.D.C." news was brought out by the unit and the 1st issue distributed.

The Field Study Demonstration Centre also assisted other programmes by organising film shows, participating in discussions and assisting celebrations and drives. The State Health Education Bureau was assisted by the unit by the conduct of pre-tests of draft materials intended for production.

CHAPTER XI

PUBLIC HEALTH TRAINING SCHOOL, TRIVANDRUM

The Public Health Training School was started on 20th May 1964. Dr. Isaac Joseph was the Special Officer of the Training School for the period 1964-1966. Dr. P. Krishnan Nair took charge as the Principal of the School on 20th June 1966.

When the surveillance work of 1,372 units of National Malaria Eradication Programme was over and the programme entered into the final phase viz. maintenance phase, a large number of surveillance workers became surplus. Again there has been a reorganisation in the set up of the Family Planning Organisation as a result of which a large number of social workers had to be absorbed as Auxiliary Health Workers. Their services could be utilised with advantage as Auxiliary Health Workers if they could be given suitable training in the various activities of the Health Services Department.

The main object of the training is to equip the Auxiliary Health Workers in the following:—

- (a) Small-pox and vaccination,
- (b) Vital Statistics and Birth and Death Registration,
- (c) Communicable diseases,
- (d) Anti-malarial work,
- (e) Environmental Sanitation and
- (f) Family Planning.

The idea is to make the training intensive and varied so that these workers would be able to do effective follow-up work in the wake of the two big Eradication Programmes, viz., Malaria and Small-pox and of other eradication programmes.

A training school was established at Trivandrum and placed under a Special Officer who worked under the Director of Health Services.

The training is for a period of one month consisting of 15 days theory at the Public Health Training School, Trivandrum and five

days practical training at the Orientation Training Centre and the Field Study Demonstration and Training Unit, Neyyattinkara. The reorganised Environmental Sanitation Pilot Project was transferred to the Health Services Department and the facilities available therein utilised for the Training School.

1009 workers were given training from the starting of the institution till 31st March 1967. The year-wise break up is given below:

Year	Number of candidates trained	
1964-65	..	684
1965-66	..	610
1966-67	..	615

In addition 116 candidates who failed in the course were also given training again during the period.

The Principal of the Public Training School is also in charge of Environmental Sanitation Programme in Blocks and Municipalities and Corporation. He is assisted by a Public Health Assistant Engineer in the work and technical sanction for construction of E.S.P. latrines and urinal-cum-latrines in schools is being issued from the school by the Principal.

CHAPTER XII

EMPLOYEES STATE INSURANCE SCHEME

Introduction

The Employees' State Insurance Scheme with a view to secure social security to the employees was first introduced in Kerala in the year 1936 in Quilon, Alleppey, Ernakulam and Trichur Districts. Now the Scheme has been extended to all Districts of Kerala covering nearly 1,70,000 employees. This Department is concerned with only the Medical benefit side of the E.S.I. Scheme, the other provisions of the Employees' State Insurance Act, 1948 being administered by the Employees' State Insurance Corporation direct.

The following were the programme for the the year 1966-67:—

I. *Spill-over Schemes:*

(i) Extension of medical benefit to 6,700 employees and their families at Thodiyoor, Kulasekharapuram, Velliyam, Pallickal, Navakulam and Maveon.

(ii) Equipping and running Hospitals—393 beds.

II. *New Schemes:*

Coverage of Shops and Establishments and Transport Companies.

Administration

Dr. H. John Kirkpatrick, M.B.B.S., D.P.H. continued to be the Administrative Medical Officer during the period under report.

Personnel.—The Office of the Administrative Medical Officer is staffed by one Gazetted Superintendent, one Statistical Assistant, 5 Upper Division Clerks, 9 Lower Division Clerks, 1 Stenographer, 3 Typists, 1 Store-keeper, 1 Pharmacist and 6 Peons.

Out of the sanctioned posts of 134 Medical Officers, 120 were in position. Due to the non-availability of para-medical personnel like Nurses, Laboratory Technicians, most of these posts could not be filled up. 7 retired compounders were re-employed in the scheme during 1966-67.

Activities—New coverage.—During the year under report the medical benefits of the Scheme was extended to the 1,500 insured persons at Mavoor (Calicut District) and 1,600 insured persons at Navaikulam (Trivandrum District). For the above purpose two full-time E.S.I. Dispensaries were opened at Mavoor and Navaikulam with the full complement of staff. To give the insured persons in-patient and specialised treatment 2 General beds were reserved in the Medical College Hospital, Calicut and the existing part-time E.S.I. Specialists in Kozhikode were authorised to attend the cases for Mavoor area. For Navaikulam area, 2 General beds, in the District Hospital, Trivandrum, one Maternity bed in the Women and Children's Hospital, Trivandrum and 2 T.B. beds in the T.B. Hospital, Pulayanarkottah were reserved and the existing part-time E.S.I. Specialists in Trivandrum were entrusted to attend the cases. The benefit of the Scheme was extended to the families of insured persons in the above places in the year under report itself, in Mavoor on 20th November 1966 and in Navaikulam on 4th December 1966.

On 1st September 1966 the part-time E.S.I. Dispensary at Kadambanad was abolished and in its place a full-time E.S.I. Dispensary was started. Another full-time E.S.I. Dispensary was opened at Pooyapally on 16th November 1966 bifurcating the insured persons near Pooyapally. This will facilitate the insured persons near Pooyapally, Velinallore, etc., num-

By the end of 1966-67, 1,71,310 employees had been covered by this Scheme. The medical benefit to the insured persons and their families were made available through 52 full-time Dispensaries, 5 Mobile, 4 Panel and 11 Government Dispensaries utilised as part-time E.S.I. Dispensaries (List of dispensaries is appended vide Annexure 1). The family medical benefit of the Scheme had not been extended to the Koratty area.

Hospitalisation.—The total number of beds reserved for the insured persons in the various hospitals as on 31st March 1967 is as follows: (Please see detailed statement vide Annexure II).

General	..	128
T.B.	..	72
Maternity	..	96

In the year 1966-67 an amount of Rs. 2,70,876 was paid by way of hospitalisation charges of insured persons in Government hospitals.

344 insured persons who were open cases of T. B. were admitted in T.B. Sanatoria during the year 1966-67. Over and above this 3,660 T.B. patients had out-patient as well as domiciliary treatment from E.S.I. Dispensaries on the advice of T.B. Specialists.

E.S.I. T.B. Ward of 24 beds was fully occupied by the insured persons throughout the year.

Specialist Services.—The services of the Specialists in almost all branches of medicine were made available for the insured persons referred by the Insurance Medical Officers. Smt. Chembakakutty, Ins No. 54-707271 had been given out-station treatment at Christian Medical College Hospital, Vellore during 1966-67 for Thoracic Surgery. The bill towards the cost of medicines, etc., for reimbursement has not been received so far. A statement showing the number of Specialists available for the insured persons in different areas as on 31st March 1967 is also appended—vide Annexure III.

Most of the Insurance Medical Officers continued to pay domiciliary visits at the rate of not less than 30 visits a month. Pharmacists were sent for giving injection to T.B. patients at their residence.

Conveyance Facilities.—One ambulance van was stationed at Asramam and another at Udyogamandal for conveying insured persons. In other areas arrangements were made for making use of ambulance vans attached to District Hospitals for the insured persons. In cases in which such facilities were not available conveyance could be engaged by employers or employees for which payment had been made. An amount of Rs. 14,125 had been reimbursed to the insured persons by way of conveyance charges during 1966-67.

Medicine and Equipments.—Medicines and equipments required for E.S.I. Dispensaries as well as part-time dispensaries were supplied from E.S.I. Central Medical Stores, Trivandrum. Total expenditure on this account for 1966-67 comes to Rs. 21,56,935.55. In addition Rs. 42,000 was reimbursed to insured persons towards the cost of medicines purchased by them as per the prescriptions of the Specialists as well as Insurance Medical Officers.

Construction of Hospitals and Dispensaries.—The E.S.I. Corporation is directly meeting the cost of the construction of hospitals and dispensaries.

The construction of the undermentioned dispensaries had been completed and commissioned on the dates noted against each. For all these dispensaries were housed in rented buildings.

1. 4 Dr. type dispensary at Factory Ward, Alleppey	..	1-4-1966
2. 3 Dr. type dispensary at Panayapally, Fort-Cochin	..	17-3-1967
3. 3 Dr. type dispensary at Ollur, Trichur	..	21-5-1966
4. 1 Dr. type dispensary at Iringallur, Kozhikode	..	21-10-1966
5. 2 Dr. type dispensary at Karaparmba, Kozhikode	..	9-3-1967

The construction of the 100 bed T.B. Hospital at Mulakunnathu also was completed but could not be commissioned for want of water connection to the building. The supply of equipment and furniture ordered for the hospital is completed. The hospital can be commissioned as soon as electric connection is received. Urgent steps have been taken for getting power connection. The construction work of the 100 bed hospital at Asramam, Quilon is almost completed.

Administrative sanction for the construction of an 80 bed T.B. Hospital at Chelavoor, Kozhikode and 50 bed Hospital at Ernakulam has been received during the period.

Construction work of the 3 Dr. type dispensary at Kilikollur was completed during this period.

A list of hospitals and dispensaries under construction as on 31st March 1967 is appended (Annexure IV).

Statistics.—

Total No. of insured persons in 1965-66	..	1,50,437
Do. 1966-67	..	1,71,310
Total No. insured persons disentitled during 1966-67	..	22,800
Do. re-entitled	..	21,212
No. of insured persons provided in-patient treatment—		
General	..	4,152
Maternity	..	721
T.B.	..	344
No. of family units enjoyed by family benefit scheme	..	1,69,469

No. of out-patient attendance during 1966-67

	<i>New</i>	<i>Old</i>	<i>Total</i>
Insured persons	4,02,339	13,52,240	17,54,579

A statement showing the details regarding the number of insured persons treated, certificates issued and the names of diseases for which the insured persons had been treated is also enclosed (see Annexure V).

A statement regarding details of sanctioned posts and the incumbents working in each institution is also attached (Annexure VI).

Statements of receipts and expenditure for 1966-67

Receipts.—Auction sale of empties and usufructs Rs. 48,471-92.

Expenditure.—

<i>Expenditure</i>	<i>Non-Plan Rs.</i>	<i>Plan Rs.</i>	<i>Total Rs.</i>
Administration ..	96,974-00	..	96,974-00
Dispensaries ..	17,60,395-00	16,974-64	17,77,369-64
Rent, rates and taxes ..	57,501-25	..	57,501-25
Telephone charges ..	10,578-15	..	10,578-15
Purchase and maintenance of van ..	42,000-00	..	42,000-00
Other items ..	46,600-00	..	46,600-00
Capitation ..	78,000-00	..	78,000-00
Drugs and dressings ..	12,85,763-80	1,82,053-00	14,67,816-80
Equipments ..	88,750-00	6,01,368-00	6,89,118-00
Hospitalisation ..	2,70,876-00	..	2,70,876-00
Cost of special medicines ..	43,526-80	261-00	43,787-80
Conveyance charges ..	14,049-35	75-00	4,14-35
Payment to part-time Doctors ..	7,000-00	..	7,000-00
Specialist services ..	9,000-00	..	9,000-00
Total ..	38,11,014-35	7,99,731-64	46,10,745-99

The expenditure is shared between the E.S.I. Corporation and the State Government in the ratio 7:1.

ANNEXURE I

No. of ESI Full-time and Part-time Dispensaries as on
31st March 1967

1.	ESI Full-time Dispensary,	Karamana, Trivandrum.
2.	Do.	Chackai, Trivandrum.
3.	ESI Mobile Dispensary,	Trivandrum.
4.	ESI Part-time Dispensary,	Nemom.
5.	Do.	Nevyattinkara.
6.	Do.	Valiathurai, Trivandrum.
7.	Rotary Club Clinic,	Poojappurai, Trivandrum.
8.	ESI Full-time Dispensary,	Navaikulam.
9.	Do.	Kalluvathukkal, Quilon.
10.	Do.	Chathannur, Quilon
11.	Do.	Pooyappally, Quilon
12.	Do.	Pattathanam, Quilon
13.	Do.	Ramankulangara, Quilon.
14.	Do.	Kilikkollur, Quilon
15.	Do.	Kottiyam, Quilon
16.	Do.	Punalur
17.	Do.	Anchal, Quilon.
18.	Do.	Asramam, Quilon.
19.	Do.	Kottankara, Quilon.
20.	Do.	Mulavana, Quilon.
21.	Do.	Nedumpana, Quilon.
22.	Do.	Perinad, Quilon.
23.	Do.	Thripalazhukam, Quilon.
24.	Do.	Thrikkovilvattam, Quilon.
25.	Do.	Poruvazhi, Quilon
26.	Do.	Mylom, Quilon.
27.	Do.	Pavithreeswaram, Quilon
28.	Do.	Kadambanad, Quilon.
29.	ESI Part-time Dispensary,	Soornad, Quilon.
30.	Do.	Partazhi, Quilon.
31.	ESI Full-time Dispensary,	Factory Ward, Alleppey.
32.	Do.	Beach Ward, Alleppey.
33.	Do.	Pathurappally, Alleppey.
34.	ESI Mobile Dispensary,	Alleppey.
35.	ESI Full-time Dispensary,	Kottayam.
36.	ESI Part-time Dispensary,	Changanacherry.
37.	Do.	Ettumanoor.
38.	ESI Full-time Dispensary,	Ernakulam
39.	Do.	Thoppumpadi, Cochin.
40.	Do.	Panayapally, Cochin.
41.	Do.	Alwaye.
42.	Do.	Udyogamandal,

43. M. Ct. M. Hospital, Perumbavoor
44. H.M.T. Dispensary, Kalamassery.
45. ESI Part-time Dispensary, Sachivothamapuram.
46. ESI Full-time Dispensary, Poonkunnam, Trichur.
47. Do. Ollur, Trichur.
48. Do. Alagappanagar, Trichur.
49. Do. Alur, Trichur.
50. Do. Karuvannur, Trichur.
51. ESI Part-time Dispensary, Mala.
52. Do. Chalakudy.
53. J. & P. Coats Dispensary, Koratty.
54. ESI Full-time Dispensary, Palghat.
55. Do. Parly, Palghat.
56. Do. Shornoor.
57. Do. Ottappalam.
58. Do. Chungam, Feroke.
59. Do. Cheruvannur, Feroke.
60. Do. Chalappuram, Kozhikode.
61. Do. Kalathinkunnu, Kozhikode.
62. Do. Iringallur, Kozhikode.
63. Do. Karamparamba, Kozhikode.
64. ESI Mobile Dispensary, Route I, Kozhikode.
65. Do. Route II, Kozhikode.
66. ESI Full-time Dispensary, Mavoor, Kozhikode.
67. Do. Baliapatam, Cannanore.
68. Do. Pappinissery.
69. Do. Cannanore.
70. Do. Dharmadam, Tellicherry.
71. ESI Mobile Dispensary, Dharmadam, Tellicherry.
72. ESI Part-time Dispensary, Thaliparamba, Cannanore.

ANNEXURE II

Statement showing the number of beds received in various Hospitals for the insured persons during the year 1966-67

137

	Trivandrum	Quilon	Kundara and Kottarakara	Alleppey	Kottayam	Ernakulam and Alwaye	Cochin
1	2	3	4	5	6	7	8
No. of General beds Name of Hospital	7 General Hospital, Trivandrum	21 District Hospital, Quilon	23 District Hospital, Quilon	10 District Hospital, Alleppey	3 District Hospital, Kottayam	3 Government Hos- pital, Alwaye 8 District Hos- pital, Ernakulam	4 Government Hospital, Palluuthy
No. of Maternity beds Name of Hospital	3 W and C Hospital, Trivandrum	18 Victoria Hospital, Quilon	24 10 Government Hos- pital, Kottarakara 14 Victoria Hos- pital, Quilon III	4 W and C Hos- pital, Alleppey	1 District Hos- pital, Kottayam	1 Government Hos- pital, Alwaye 2 D.H. Ernakulam	2 W. and C. Hos- pital, Mattan- cherry
No. of T.B. beds	31 for, Trivandrum QLN, and Alleppey areas	2			2		22 for Ernakulam and Trichur areas
Name of Hospital	T B Hos- pital. Pulayanar- kottah.	T.B Hospital, Pulayanar- kottah	T.B Hospital, Pulayanar- kottah	T B Hospital, Pulayanar- kottah	T B Hospital, Pulayanar- kottah	K V Sanato- rium, Mulakunna- thukavu	K V Sani- torium, Mulakun- nathukavu

ANNEXURE II—(cont.)

	Trichur	Perumbavoor	Palghat	Kozhikode	Tellicherry	Cannanore	Total
	9	10	11	12	13	14	15
No. of General beds Name of Hospital	13 District Hospital, Trichur	3 M.C.T. M. Hospital, Perumbavoor	4 District Hospital, Palghat	16 District Hospital, Kozhikode	2 Government Hospital, Tellicherry	6 District Hospital, Cannanore	128
No. of Maternity beds Name of Hospital	6 Maternity Hospital, Trichur	..	2 District Hospital, Palghat	4 W. and C. Hospital, Kozhikode	1 Government Hospital, Tellicherry	4 District Hospital, Cannanore	72
No. of T.B. beds	22 for Ernakulam and Trichur areas	..	2	13	..	6	96
Name of Hospital	K.V. Sanatorium, Mulakunnathukavu	..	K.V. Sanatorium, Mulakunnathukavu	K.V. Sanatorium, Mulakunnathukavu	T.B. Hospital, Pariyaram	T.B. Hospital, Pariyaram	

Rate of Hospital stoppage for occupied reserved general and maternity beds—Rs. 5 per diem.

Rate of Hospital stoppage for un-occupied reserved beds for General and Maternity beds—Re. 1 Ps. 12 per diem.

Rate of Hospital stoppage for occupied reserved T.B. beds—Rs. 6 per diem.

Rate of Hospital stoppage for un-occupied reserved T.B. beds—Rs. 50 per mensem.

Leprosy—

Medical Officer-in-charge, Government Hospital, Noornad

To attend insured persons in Trivandrum, Quilon and Alleppey.

Medical Officer-in-charge, Government Hospital, Koratty

To attend the insured persons in Ernakulam, Alwaye, Udyogamandal, Cochin, Trichur, Palghat, Kozhikode and Cannanore.

Orthopaedic—

Medical Officer-in-charge, Medical College Hospital, Trivandrum

To attend the insured persons in Trivandrum, Quilon, and Alleppey.

Medical Officer-in-charge, Medical College Hospital, Calicut

To attend the insured persons in Calicut, Tellicherry and Cannanore.

Medical Officer-in-charge, District Hospital, Kottayam

To attend the insured persons in Kottayam.

Medical Officer-in-charge, District Hospital, Ernakulam

To attend the insured persons of Ernakulam, Cochin and Alwaye.

Medical Officer-in-charge, District Hospital, Trichur

To attend the insured persons of Trichur and Palghat.

Mental—

Medical Officer-in-charge, Mental Hospital, Trivandrum

To attend the insured persons of Trivandrum, Quilon and Alleppey.

Medical Officer-in-charge, Mental Hospital, Trichur

To attend the insured persons of Cochin, Ernakulam, Alwaye, Trichur and Palghat.

Medical Officer-in-charge, Mental Hospital, Kozhikode

To attend the insured persons of Calicut, Tellicherry and Cannanore.

ANNEXURE IV

**Hospitals and Dispensaries under construction as on
31st March 1967 under the ESI Scheme****Hospitals.—**

- | | | |
|-----|--------------------------|-------------------------|
| 1. | 150 bed Hospital at | Ezhukone. |
| 2. | 120 Do. | Udyogamandal. |
| 3. | 100 bed T.B. Hospital at | Mulakunnathukavu. |
| 4. | 100 bed Hospital at | Asramam, Quilon. |
| 5. | 100 bed T.B. Hospital at | Paripally, Quilon. |
| 6. | 80 Do. | Arpookara, Kottayam. |
| 7. | 80 Do. | Thottada, Cannanore. |
| 8. | 60 bed Hospital at | Trichur. |
| 9. | 55 Do. | Beach Ward, Alleppey. |
| 10. | 50 Do. | Vadavathur, Kottayam. |
| 11. | 50 Do. | Peroorkada, Trivandrum. |

Dispensaries.—

- | | | |
|-----|--------------------------|------------------------|
| 1. | 3 Dr. Type dispensary at | Kottiyam. |
| 2. | 3 Do. | Kilikollur. |
| 3. | 5 Do. | Kottankara. |
| 4. | 2 Do. | Kalluvathukkal. |
| 5. | 2 Do. | Thrippalazhikom. |
| 6. | 2 Do. | Pavithreeswaram. |
| 7. | 2 Do. | Punalur. |
| 8. | 2 Do. | Thrikkovilvattam. |
| 9. | 2 Do. | Muttambalam, Kottayam. |
| 10. | 4 Do. | Ernakulam. |
| 11. | 5 Do. | Alwaye. |
| 12. | 4 Do. | Poonkunnam, Trichur. |

ANNEXURE V

No. of insured persons	Number of patients attended			Number of certificates issued						Number of injury reports issued	No. of operations performed	No. of injection given	No. of home visits
	New	Old (Repeat)	Total	First	First and final (combined)	Final	Intermediate	Special Inter-mediate					
1	2	3	4	5	6	7	8	9	10	11	12	13	
..	402339	1352240	1754579	155698	50970	153810	92326	1960	3431	5693	404391	16984	

New cases by diseases

Cases referred to hospitals			Cases admitted to hospitals			
Laboratory examination	X-Ray	Specialist advice	Total No. of cases	Total No. of days for all cases	Average No. of beds occupied/days ratio	
3059	1699	9099	3813	35996	19	..

New cases by diseases

New cases by diseases													
(a) Scarlet fever	(b) Diphtheria	(c) Whooping cough	(d) Measles	(e) Mumps	(f) Chicken-pox	Typhus and other rickettsial diseases	Malaria	(a) Filariasis	(b) Ankylostomiasis	(c) Other helminths	(a) Meningococcal infection (Cerebrospinal)	(b) Plague	(c) Small-pox
7													
						8	9		10			11	

New cases by diseases

New cases by diseases														
(d) Leprosy	(c) Kala-azar	(f) Parasitic skin infections	(g) Tetanus	(h) Yaws (Framboesia)	(i) Infectious hepatitis	(j) Other infectious and parasitic	Malignant neoplasms, all sites	Benign neoplasms, all sites	Asthma	Allergic disorders	Diseases of thyroid gland	Diabetes mellitus	Avtanosis and other deficiency status	
11														
43	44	45	46	47	48	49	12	13	51	52	53	54	55	
8	4294	15	2	1846	1478	112	91	14200	9066	301	732	20793		

ANNEXURE V—(cont.)

New cases by diseases

(a) Diseases of female genital organs	(b) Diseases of female genital organs	New cases by diseases										(c) Urinary calculus
		(a) Normal deliveries	(b) Complications of pregnancy, child-birth and the puerperium	(c) Abortions	Boil, abscess, cellulitis and other skin infections	Other diseases of skin	Arthritis and rheumatism	Diseases of bones and other organs of movement	Congenital malformations and dislocations peculiar to early infancy	(a) Epilepsy	(b) Diseases of nerves and peripheral ganglia	
42		43			44	45	46	47	48		49	
84	85	86	87	88	89	90	91	92	93	94	95	96
809	2643	2078	1150	658	15051	8613	19446	2746	25	304	1156	290

New cases by diseases

(d) Other diseases of urinary system	(c) Other specific and defined diseases	P. U. O.										49		50		51		Special local groups
		(a) Open fractures (all sites)	(b) Close fractures (all sites)	(c) Complicated fractures (all sites and complications)	(d) Dislocations	(e) Head injury (excluding fracture)	(f) Internal injury chest, abdomen and pelvis	(g) Lacerated open and contused wounds	(h) Burns and scalds	(i) Occupational poisoning	(j) Other poisonings	(k) Other violent cases						
7895	24098	229	100	13	119	124	583	7946	107	103	109	110	111	51	51	51	..	

ANNEXURE VI

Statement showing the strength of Medical and Ancillary staff as on 31st March 1967 in Full-time Static Insurance Dispensaries, Mobile Dispensaries and Part-time Dispensaries staffed by Full-time Ancillary staff (including Ayurvedic Units)

Serial number	Name of dispensary (Full-time, Part-time and Mobile only Centre-wise separately)	I. M. O.					Nurses		Health Visitors		Midwives		Clerks		
		S.		P.		M.	F.	S.	P.	S.	P.	S.	P.		
		M.	F.	M.	P.										
														S.	P.
1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Trivandrum Area															
1	E.S.I. Dispensary, Karamana	..	1	1	..	1	1	1	..	1	1	1	1	1	
2	Do. Chackai	..	..	..	..	1	1	1	..	1	1	1	1	1
3	Do. Navaikulam	..	..	..	..	1	1	1	..	1	1	1	1	1
Quilon Area															
4	E.S.I. Dispensary, Kalluvathukal	..	2	2	..	1	1	1	..	1	1	1	1	1	
5	Do. Chathannur	..	2	2	..	1	1	1	..	1	1	1	1	1	
6	Do. Pattathanam	..	3	3	..	2	2	2	..	1	1	3	2	2	
7	Do. Kottiyam	..	3	3	..	2	2	2	..	1	1	3	2	2	
8	Do. Asramam	..	2	2	..	1	1	1	..	1	1	2	2	2	
9	Do. Ramankulangara	..	2	2	..	1	1	1	..	1	1	2	2	2	
10	Do. Kilikollur	..	1	1	..	1	1	1	..	1	1	1	1	1	
11	Do. Punalur	..	1	1	..	1	1	1	..	1	1	1	1	1	
12	Do. Anchal	..	1	1	..	1	1	1	..	1	1	1	1	1	
13	Do. Thrikkovilattom	..	1	1	..	1	1	1	..	1	1	1	1	1	
14	Do. Perinad	..	1	1	..	1	1	1	..	1	1	1	1	1	
15	Do. Mulavana	..	1	1	..	1	1	1	..	1	1	1	1	1	
16	Do. Kottankara	..	2	2	..	2	2	2	..	1	1	2	2	2	

ANNEXURE VI—(cont.)

Serial number	Name of dispensary (Full-time, Part-time and Mobile only Centre-wise separately)	Compounders		Lab. Technician		Dresser		Class IV Servants		Driver	
		S.	P.	S.	P.	S.	P.	S.	P.	S.	P.
		15	16	17	18	19	20	21	22	23	24
Trivandrum Area—(cont.)											
1	E.S.I. Dispensary, Karamana	1	1	..	..	1	1	4	3	..	..
2	Do. Chackal	1	1	..	..	1	1	4	3	..	..
3	Do. Navaikulam	2	1	1	..	1	1	4	3	..	..
Qullon Area											
4	E.S.I. Dispensary, Kalluvathukal	5	3	1	..	2	1	6	6	..	..
5	Do. Chathannur	3	3	1	..	2	2	6	6	..	..
6	Do. Pattathanam	5	5	1	..	3	2	9	9	..	..
7	Do. Kottiyam	4	4	1	1	3	2	9	6	..	..
8	Do. Aramam	4	1	1	..	2	2	8	7	..	..
9	Do. Ramankulangara	1	1	1	..	1	2	4	4	..	..
10	Do. Kilikollur	2	2	1	..	1	1	6	5	..	..
11	Do. Punalur	..	..	..	..	1	1	5	4	..	..
12	Do. Anchal	2	2	..	..	1	1	4	5	..	..
13	Do. Thrikkovilattom	1	1	..	..	1	1	5	4	..	..
14	Do. Perinad	1	1	..	..	1	1	5	5	..	..
15	Do. Mulavana	4	3	1	..	1	1	4	4	..	..
16	Do. Kottankara	5	3	1	..	2	3	9	7	..	..

ANNEXURE VI—(cont.)

Serial number	Name of dispensary (Full-time, Part-time and Mobile only Centre-wise separately)	I. M. O.						Nurses		Health Visitors		Midwives		Clerks	
		S.		P.											
		M.	F.	M.	F.	S.	P.	S.	P.	S.	P.	S.	P.	S.	P.
1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Quilon Area—(cont.)															
17	E.S.I. Dispensary, Nedumpana	..	1	2	..	1	..	1	..	1	1	..	..	..	..
18	Do. Poruvazhy	..	1	1	..	1	..	1	..	1	1	..	..	..	..
19	Do. Pavithreswaram	..	1	2	..	1	..	1	..	2	2	..	..	..	..
20	Do. Thrippalazhikom	..	2	3	1	1	..	1	..	2	2	..	..	..	..
21	Do. Mylom	..	2	3	1	1	..	1	..	2	2	..	..	..	..
22	Do. Pooyappally	..	1	1	..	1	..	1	..	1	1	..	..	..	..
23	Do. Kadambanad	..	1	2	1	1	..	..	..	1	1	..	..	..	..
Alleppey District															
24	E.S.I. Dispensary, Beach Ward	..	1	1	..	1	..	1	..	1	1	..	..	..	..
25	Do. Factory Ward	..	1	1	1	1	..	1	..	1	1	..	..	..	..
26	Do. Pathirappally	..	1	1	1	1	..	1	..	1	1	..	..	..	..
Kottayam District															
27	E.S.I. Dispensary, Kottayam	..	1	2	..	1	..	1	..	1	1	..	..	..	..
Ernakulam District															
28	E.S.I. Dispensary, Thoppumpady	..	1	1	1	1	1	1	..	1	1	..	..	..	..
29	Do. Panayappally	..	1	1	1	1	1	1	..	1	1	..	..	..	..
30	Do. Ernakulam	..	2	2	2	1	1	1	..	2	2	..	..	..	..

ANNEXURE VI—(cont.)

Serial number.	Name of dispensary (Full-time, Part-time and Mobile only Centre-wise separately)	Compounders		Lab. Technician		Dresser		Class IV Servants		Driver	
		S.	P.	S.	P.	S.	P.	S.	P.	S.	P.
		15	16	17	18	19	20	21	22	23	24
	Quilon area—(cont.)										
17	E.S.I. Dispensary, Nedumpana	2	1	..	..	1	1	5	4	..	..
18	Do. Poruvazhy	2	2	..	..	1	1	5	5	..	..
19	Do. Pavithreswaram	3	3	1	..	2	1	6	6	..	..
20	Do. Thrippalazhikom	4	3	1	..	2	2	8	7	..	..
21	Do. Mylom	4	4	1	..	3	1	8	7	..	..
22	Do. Poovappally	1	1	..	..	1	1	4	3	..	..
23	Do. Kadambanad	2	1	..	..	1	1	4	3	..	..
	Alleppey District—(cont.)										
24	E.S.I. Dispensary, Beach Ward	1	1	..	..	2	2	2	2	..	..
25	Do. Factory Ward	2	2	..	..	1	1	2	2	..	..
26	Do. Pathirappally	2	2	1	..	1	1	3	2	..	..
	Kottayam District—(cont.)										
27	E.S.I. Dispensary, Kottayam	2	2	1	..	1	1	5	4	..	..
	Ernakulam District—(cont.)										
	E.S.I. Dispensary, Thoppumpady	2	2	1	..	1	1	4	4	..	..
	Do. Panayappally	2	2	1	..	1	1	4	4	..	..
	Do. Ernakulam	4	4	1	..	1	2	8	8	..	..

Serial number	Name of dispensary (Full-time, Part-time and Mobile only (Centre-wise separately))	I. M. O.					Nurses		Health Visitors		Midwives		Clerks	
		S.		P.			S.	P.	S.	P.	S.	P.		
		M.	F.	M.	F.	P.								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Ernakulam District—(cont.)														
31	E.S.I. Dispensary, Alwaye	3	2	4	1	2	1	1	..	3	3	3	..	..
32	Do. Udyogamandal	3	2	..	4	2	1	1	..	3	3	2	..	..
Trichur District—(cont.)														
33	E.S.I. Dispensary, Alagappanagar	2	2	2	2	1	..	1	..	2	1	1	..	..
34	Do. Ollur	2	1	2	1	1	..	1	1	1	1	2	..	..
35	Do. Ponkunnam	2	2	2	2	1	..	1	1	2	1	2	..	..
36	Do. Karuvannur	1	..	1	..	1	..	1	..	1	1	1	..	..
37	Do. Alur	1	..	1	..	1	..	1	..	1	1	1	..	..
Palghat District—(cont.)														
38	E.S.I. Dispensary, Palghat	1	..	..	1	1	..	1	..	1	1	1	..	..
39	Do. Parly	1	..	1	..	1	..	1	..	1	1	1	..	..
40	Do. Ottappalam	1	..	1	..	1	..	1	..	1	1	1	..	..
41	Do. Shoranur	1	..	1	..	1	1	1	..	1	1	1	..	..
Kozhikode District—(cont.)														
42	E.S.I. Dispensary, Chungom	1	1	2	..	1	1	1	..	1	1	1	..	..
43	Do. Cheruvannur	2	2	1	1	1	..	1	..	2	2	2	..	..
44	Do. Chalappuram	2	2	2	2	1	..	1	..	2	2	2	..	..

Name of Dispensary (Full-time, Part-time and Mobile only Centre-wise separately)	Compounders		Lab. Technician		Dresser		Class IV Servants		Driver	
	S.	P.	S.	P.	S.	P.	S.	P.	S.	P.
	15	16	17	18	19	20	21	22	23	24
Ernakulam District—(cont.)										
1. St. Joseph's, Alwaye	5	5	1	..	3	3	9	9	..	..
2. St. Mary's, Changanassery	..	4	1	..	3	3	9	9	..	..
3. St. Peter's, Changanassery
4. St. John's, Changanassery
5. St. James', Changanassery
6. St. George's, Changanassery
7. St. Andrew's, Changanassery
8. St. Thomas', Changanassery
9. St. Francis', Changanassery
10. St. Mary's, Changanassery
11. St. John's, Changanassery
12. St. Peter's, Changanassery
13. St. James', Changanassery
14. St. George's, Changanassery
15. St. Andrew's, Changanassery
16. St. Thomas', Changanassery
17. St. Francis', Changanassery
18. St. Mary's, Changanassery
19. St. John's, Changanassery
20. St. Peter's, Changanassery
21. St. James', Changanassery
22. St. George's, Changanassery
23. St. Andrew's, Changanassery
24. St. Thomas', Changanassery
25. St. Francis', Changanassery
26. St. Mary's, Changanassery
27. St. John's, Changanassery
28. St. Peter's, Changanassery
29. St. James', Changanassery
30. St. George's, Changanassery
31. St. Andrew's, Changanassery
32. St. Thomas', Changanassery
33. St. Francis', Changanassery
34. St. Mary's, Changanassery
35. St. John's, Changanassery
36. St. Peter's, Changanassery
37. St. James', Changanassery
38. St. George's, Changanassery
39. St. Andrew's, Changanassery
40. St. Thomas', Changanassery
41. St. Francis', Changanassery
42. St. Mary's, Changanassery
43. St. John's, Changanassery
44. St. Peter's, Changanassery
45. St. James', Changanassery
46. St. George's, Changanassery
47. St. Andrew's, Changanassery
48. St. Thomas', Changanassery
49. St. Francis', Changanassery
50. St. Mary's, Changanassery
51. St. John's, Changanassery
52. St. Peter's, Changanassery
53. St. James', Changanassery
54. St. George's, Changanassery
55. St. Andrew's, Changanassery
56. St. Thomas', Changanassery
57. St. Francis', Changanassery
58. St. Mary's, Changanassery
59. St. John's, Changanassery
60. St. Peter's, Changanassery
61. St. James', Changanassery
62. St. George's, Changanassery
63. St. Andrew's, Changanassery
64. St. Thomas', Changanassery
65. St. Francis', Changanassery
66. St. Mary's, Changanassery
67. St. John's, Changanassery
68. St. Peter's, Changanassery
69. St. James', Changanassery
70. St. George's, Changanassery
71. St. Andrew's, Changanassery
72. St. Thomas', Changanassery
73. St. Francis', Changanassery
74. St. Mary's, Changanassery
75. St. John's, Changanassery
76. St. Peter's, Changanassery
77. St. James', Changanassery
78. St. George's, Changanassery
79. St. Andrew's, Changanassery
80. St. Thomas', Changanassery
81. St. Francis', Changanassery
82. St. Mary's, Changanassery
83. St. John's, Changanassery
84. St. Peter's, Changanassery
85. St. James', Changanassery
86. St. George's, Changanassery
87. St. Andrew's, Changanassery
88. St. Thomas', Changanassery
89. St. Francis', Changanassery
90. St. Mary's, Changanassery
91. St. John's, Changanassery
92. St. Peter's, Changanassery
93. St. James', Changanassery
94. St. George's, Changanassery
95. St. Andrew's, Changanassery
96. St. Thomas', Changanassery
97. St. Francis', Changanassery
98. St. Mary's, Changanassery
99. St. John's, Changanassery
100. St. Peter's, Changanassery

ANNEXURE VI—(cont.)

Serial number	Name of dispensary (Full-time, Part-time and Mobile only Centre-wise separately)	Compounders		Lab. Technician		Dresser		Class IV Servants		Driver	
		S.	P.	S.	P.	S.	P.	S.	P.	S.	P.
		15	16	17	18	19	20	21	22	23	24
Kozhikode District—(cont.)											
45	E.S.I. Dispensary, Iringallur	1	1	..	..	1	1	4	3	..	..
46	Do. Kalathinkunnu	3	3	1	..	2	2	6	5	..	..
47	Do. Karaparamba	2	2	1	..	1	1	5	4	..	..
Cannanore District—(cont.)											
48	E.S.I. Dispensary, Dharmadam	1	1	..	..	1	1	4	3	..	..
49	Do. Cannanore	2	2	1	..	1	1	5	4	..	..
50	Do. Pappinisseri	3	3	1	..	2	2	6	5	..	..
51	Do. Balpatam	1	1	..	..	1	1	4	3	..	..
Mobile Dispensaries—(cont.)											
52	E.S.I. Mobile Dispensary, Trivandrum	1	1	..	..	1	1	1	1	1	1
53	Do. Alleppey	1	1	..	..	1	1	1	1	1	1
54	Do. Route No. I,	..	..	..	..	..	..	..	..	..	..
55	Kozhikode	1	1	..	..	1	1	1	1	1	1
	Route No. II,	..	..	..	..	..	..	..	..	..	..
	Kozhikode	1	1	..	..	1	1	1	1	1	1
..	Do. Dharmadam	1	1	..	..	1	1	1	1	1	1

S Denotes sanctioned.

P. Denotes present

M. Denotes male and F denotes female.

CHAPTER XIII

HEALTH TRANSPORT ORGANISATION

This is the fourth year of Health Transport Organisation. During the year 9 Jeeps for Family Planning and 10 Renaults for Primary Health Centres were received additionally. Also a mobile Generator was received from UNICEF for the State T.B. Programme.

The State Maintenance Unit attached to the Central Workshop was converted as the III Mobile Maintenance Unit with Headquarters at Quilon.

The Organisation was awarded with the Rolling Trophy by Government of India for "Best Health Transport Organisation" for 1965. An individual shield also was awarded to the State Health Transport Officer. The trophy was received by Sri C. K. Kochukoshy, Secretary to Government, Health & Labour Department from Dr. Susila Nayya on 27th May 1966 at Bangalore.

CHAPTER XIV

FIVE YEAR PLAN

Plan Schemes

The Schemes included for the year 1966-67, the 1st year of the IV Plan consisted of expansion of hospitals, construction of buildings for Primary Health Units, training of Nursing and other personnel, scheme for control of diseases, development of health education, laboratory services and M.C.H. and the centrally sponsored scheme for Family Planning. An outlay of Rs. 2.08 crores was provided for all the above schemes and it was mainly for the continuing schemes—training of Nurses, Midwives, N.F.C.P., N.S.E.P., Family Planning, etc., and for taking up of certain new schemes that are proposed in the IV Plan. Thus with the limited outlay, this year's plan was only an emergency plan and it could not reflect the IV Plan nor could it predict the size and content of the IV Plan as it could have been in the normal course. In fact the IV Plan itself was not then finalised. The significant physical achievements of the year were—

- (i) 250 candidates were admitted for training in General Nursing.
- (ii) 300 candidates were admitted for training as Emergency Nursing aids.
- (iii) 6 Medical Officers have completed training in D.P.H.
- (iv) 2 District T.B. Centres were started.
- (v) Trachoma Control Pilot Project was started at Cannanore.
- (vi) A total 40,274 sterilisation operations and 40,760 I.U.C.D. insertions were done during the year under the Family Planning Programme.

The progress achieved under the different schemes are furnished below:

The construction of additional beds as spill over from the 3rd Plan were continued. In addition to this 520 beds were provided during the year and about 350 beds were under construction by the end of the year. Modern equipments were supplied to hospitals and additional staff were posted to the three Mental Hospitals. A 300 bed ward was proposed to be constructed at Mental Hospital, Trivandrum. But the plan and estimate for the building was under preparation by the end of the year. Construction of Primary Health Centre buildings was continued.

250 candidates were admitted for training as General Nurses on 1st January 1967. Selection of 100 candidates for training in General Nursing as Non-stipendiary candidates and 235 candidates for training as Auxiliary Nurse Midwives was not over by the end of the year. 300

The training of Non-Medical Leprosy Assistants could not be started during the year as the selection of candidates was not over.

Two District T.B. Centres were started one at Ernakulam and the other at Trichur. 50 T.B. isolation beds were constructed at the T.B. Hospital, Karunagappally and 50 more beds at Pariyaram. 40 S.E.T. Centres were sanctioned during the year. 20 N.F.C.P. Units were continued. The scheme for Smallpox Eradication had entered its maintenance phase already by the end of the 3rd Plan. The mopping up of operations were carried on in vulnerable areas with the skeleton staff. The Trachoma Control Program-Project at Cannanore. Massrol was continued.

Additional staff were sanctioned for the Public Health Laboratory, Government Analyst Laboratory, Trivandrum and the District Laboratories region.

to the Central Laboratory, Trivandrum and the District Laboratories in other Districts. A scheme for construction of building for Regional Laboratory was taken up during the year. Additional staff were appointed for starting District level organisations and for supervision and guidance. Statistical section were started in District Hospitals, Trivan-

There was an expenditure of Rs. 1.30 crores for

Plan Schemes 1966-67

Name of Scheme	IV Plan provision 1966-71 (Rs. in lakhs)	Annual Plan 1966-67	
		Provision (Rs. in lakhs)	Expenditure Rs.
1	2	3	4
Training Programme.—			
Training of General Nurses ..	59.60	15.276	9,22,656
Public Health Nurses ..	2.00	..	..
Training of Non-Medical Leprosy Assistants ..	0.40	0.100	573
Training of Doctors in Leprosy ..	0.50	..	..
Training of Doctors in V.D. ..	0.50	0.060	6,833
Training of Doctors in D.P.H. ..	2.50	0.300	40,200
Training of Doctors in D.M.C.W. ..	0.20	..	..
Orientation Training Centre ..	4.50	0.490	..
Training of Sister Tutors ..	0.40	0.400	..
Public Health Training (i) Training School ..	7.00	0.470	45,966
(ii) Sanitary Inspectors ..		0.250	2,117
Training of Laboratory Technicians, Pharmacists and Radiographers ..	18.00	..	..
Training of Compounders ..	..	0.010	466
Training of Health Visitors ..	7.34	..	..
Total ..	102.94	129.479	85,64,353
Family Planning ..	*35.00	**4.169	2,33,012
Total ..	35.00	..	..
Control of Communicable Diseases.—			
T.B. Clinics ..	13.00	1.816	1,39,244
T.B. Isolation beds ..	14.00	3.185	1,47,610

* States share.

** For training of Auxiliary Nurse Midwives.

Plan Schemes—(cont.)

Name of Scheme	IV Plan provision 1966-71 (Rs. in lakhs)	Annual Plan 1966-67	
		Provision (Rs. in lakhs)	Expenditure Rs.
1	2	3	4
V.D. Clinics	7.00		..
Rehabilitation and work centre for T.B. Patients	0.001	0.001	239
S.E.T. Centres	8.00	0.516	22,207
Improvements to Leprosy Sanatorium and Introduction of reconstructive surgery, L.S. Noornad	4.06		
Rehabilitation Leprosy	1.00	0.200	15,200
Physiotherapy Training and Units	1.00		
N.F.C.P.	75.00	11.200	10,29,203
Smallpox Eradication	10.00	2.000	1,95,484
Trachoma control	1.00	0.210	900
Cholera control	2.00	0.800	..
Bureau of Epidemiology	1.00	0.250	..
Total	137.061	..	..
Fully Centrally Assisted Schemes.—			
Supply of drugs for domiciliary treatment of T.B.	12.00	..	..
Hospitals and Dispensaries.—			
Provision of additional beds in Hospitals	150.00	5.504	4,36,757
District Poly Clinics	20.00	..	..
Specialists service in peripheral medical institutions	3.00	..	..
Blood Banks	5.00	..	..
Medical Stores	3.90	..	..
Medical Records sections	2.00	0.200	..
Paediatric Units	2.50	0.800	..
Linking up of Paediatric Units	2.55	..	..
Casualty service in District Hospitals	9	..	..
Modern equipment and other improvements			

Plan Schemes—(cont.)

Name of Scheme	IV Plan provision 1966-71 (Rs. in lakhs)	Annual Plan 1966-67	
		Provision (Rs. in lakhs)	Expenditure Rs.
I	2	3	4
New Dispensaries	11.00	..	..
Mental Health Services	30.00	7.000	13,910
Dental Clinics	7.00	..	..
Total	282.95	..	..
Primary Health Centres	100.00	5.756	2,31,238
Total	100.00	..	..
Other Health Schemes.—			
Physical Medicine	0.10	0.100	..
Tripple immunisation	1.20	..	..
Flying Squad for M.C.H.	1.85	..	..
Government Analyst Laboratory	14.00	3.001	74,345
Public Health Laboratory, Trivandrum	15.00	2.001	45,400
Regional Public Health Laboratory	10.00	2.001	42,000
Food Administration	20.00	1.500	87,915
Health Museum	3.00	..	..
School Health Education	0.50	0.100	617
Health Education Training Unit	0.40	0.115	2,938
District Health Education Units	5.10	..	..
Strengthening Health Education Bureau	0.40	..	..
School Health Services	4.00	1.000	87,000
Nutrition Programme	7.00	0.200	2,051
Health Organisation	2.00	..	..
Statistical section	2.50	0.100	4,900
Health Transport Organisation	3.00	..	..

Plan Schemes—(cont.)

Name of Scheme	IV Plan provision 1966-71 (Rs. in lakhs)	Annual Plan 1966-67	
		Provision (Rs. in lakhs)	Expenditure Rs.
1	2	3	4
Technical Library services	1.00	..	..
Instrument repair organisation	2.00	..	..
	---	---	---
Total	93.05	..	..
	---	---	---
Grand Total	751.001	..	..

Statement showing the Receipts and Expenditure
incurred under the various Heads of Accounts
operated by this Department during 1966-67

Head of Account

Amount incurred
during 1966-67

29 MEDICAL (Non-PLAN)		
29 Medical (a) Medical Establishment (i)		
Superintendence—Medical		
Directorate	..	3,92,939.39
" (iii) District Medical Officers—		
Medical	..	5,82,123.47
" (v) Medical Stores	..	5,02,347.22
" (b) Hospitals and Dispensaries		
E. Other hospitals and dispensaries, etc.	..	5,14,02,107.2
" " G. Leprosy Control Scheme		
S.L.T. Centres	..	1,71,017.5
" " H. Rehabilitation Scheme		
for Leprosy patients	..	29.55
" " I. Physiotherapy Unit	..	1.00
" " J. T. B. Clinics (I, II, B.		
Centres Quilon with		
Indo-Norwegian Aid	..	

Medical Account

*Amount granted
during 1956-57*

20 Medical (a) Hospitals and Dispensaries		
J. L. B. Clinics in Other		
I. B. Clinics	..	1,31,615-24
" K. T.B. Isolation Bed	..	35,633-17
" L. Rehabilitation Scheme		
for T. B. Patients	..	737-75
" M. V. D. Clinics	..	2,935-10
" 2. Grants for Medical purposes		
I. Medical Grants i. Grants		
including supply of under		
to private Medical institu-		
tions	..	1,31,550-40
ii. Financial Assistance to		
I. B. Patients in indigent		
circumstances	..	4,65,560-33
" 3. Grants to Medical Prac-		
titioners' Council	..	5,000-00
" 4. Grants to Dental Profession	..	2,500-00
" 5. Grants to Nurses,		
etc., trained	..	Nil
" 6. Grants for other purposes	..	2,000-00
" 9. Grants to Leprosy		
Sanatorium in building hospi-		
tals paid to staff	..	1,000-00
" Schemes under Five Year		
Plan - Grants to Leprosy		
Sanatorium in building hospi-		
tals paid to staff	..	Nil
" (c). Mental Hospitals - A Non-Plan		
Scheme	..	16,03,241-24
	Total	3,55,41,143-21

29 MEDICAL - PLAN)

29 Medical (a) Medical Establishment VII		
Schemes under Five Year		
Plan		
A. Medical I. Strengthening of Stati-		
tics	..	5,314-73
III. Medical Record section	..	740-10
29 Medical (b) Hospitals and Dispensaries		
IV. Schemes under the Five		
Year Plan (i) Medical B-		
Providing additional beds		
in hospitals	..	1,09,933-41

Head of Account	Amount incurred during 1966-67
Public Health (a) P. H. Establishment	
b. Grants for Public Health purposes—1 Contribution to Trivandrum Corporation for Mosquito control work	1,20,901-86
2. Grants to Municipalities for Mosquito control in Cochin area	9,119-00
3. Grants to Kottayam and Quilon Municipalities	4,282-21
4. Grants to Welfare Institutions	17,052-33
6. Miscellaneous grants	83,669-33
(c) Expenses in connection with epidemic diseases—i. Plague, ii. Cholera—iii. Small-pox	6,70,967-75
(d) Bacteriological Laboratories	
i. Public Health Laboratory, Trivandrum	6,23,315-70
ii. Government Analyst's Laboratory, Trivandrum	2,61,374-71
iii. Public Health Laboratory, Trivandrum	31,243-07
iv. Public Health Laboratory, Quilon	33,484-16
v. Applied Nutrition Programme	27,268-51
vi. Public Health Laboratory, Kottayam	
Total	2,22,54,117-60
3) Public Health Training	
Public Health (a) P. H. Establishment XVIII Scheme under the Five Year Plan, Health Education & Establishment of Training Unit	2,61,000-
3. Training Scheme for P.H. Dept. Training of Laboratory Staff & Supervisors	2,20,000-
4. Training of Lecturers for D.P.H.	
5. Public Health Training School	
6. District Public Health Centre	

*Head of Account**Amount incurred
during 1966-67*

39 MISCELLANEOUS

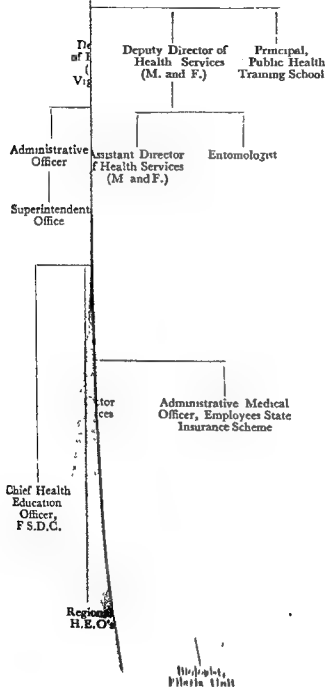
39	Miscellaneous	Social and Developmental organisation (b) State Sta- tistics (i) Registration of Births, Deaths and Marri- ages—A. Registration of Births and Deaths	1,89,768 28
"		B. Registration of Marriages	4,853 34
		Total of (i)	1,94,621 62

RECEIPTS HEADS

XXIII.	Medical	(b) Hospital Receipts (i)	
		Medical	8,9,789 19
"		(c) Mental Hospital receipts	41,865 96
"		(d) Sale of Medicines (i)	
		Medical	8,12,023 76
"		(e) Contribution (i) Medical	9,450 14
"		(f) Income from Endowments	
		(i) Medical	229 67
"		(g) Recoveries of overpay- ments (i) Medical with T.B. relief	1,24,238 62
"		(h) Collection of payments for services rendered (i) Me- dical	23,140 70
"		(i) Miscellaneous (iv) Swedish Save the Children fund	6,436 45
"		(vi) Rent for residential quar- ters	98,702 03
"		(vii) Other items	3,31,654 14
Deduct	Refunds	(i) Medical Department	6,364 25
		Total	22,51,166 43

XXIV. PUBLIC HEALTH

XXIV.	Public Health	(a) Contributions	84,525 18
"		(b) Recoveries of over payments	1,29,
"		(c) Collection of payments for services rendered	74,8
"		(d) Miscellaneous (i) Receipts from mar- kets, cartstands, etc.	



List of Institutions as on 31-12-1966

TRIVANDRUM DISTRICT

Neyyattinkara Taluk:

	No. of beds
1. Government Hospital, Parassala	72
2. Secondary Health Centre, Neyyattinkara	108
3. Primary Health Centre, Vempakal	8
4. " Vilappil	6
5. " Pulluvila	4
6. " Vizhinjam	6
7. " Vellarada	8
8. " Poovar	20
9. " Perumkadavila	20
10. Temporary Malaria Dispensary, Chembur	4
11. " Kunnathukal	..
12. " Malayinkil	..
13. " Poozhanad	..

Trivandrum Taluk:

1. Medical College Hospital, Trivandrum	862
2. S.A.T. Hospital, Trivandrum	524
3. Ophthalmic Hospital, Trivandrum	150
4. Mental Hospital Trivandrum	201
5. T.B. Hospital, Pulayanarkottah	476
6. District Hospital, Trivandrum	506
7. W. & C. Hospital, Trivandrum	230
8. Govt. Hospital, Peroorkada	200
9. Fort Hospital, Trivandrum	18
10. Contagious Disease Hospital, Iranimuttam	89
11. Central Prison Hospital, Trivandrum	36
12. T.B. Centre, Trivandrum	12
13. Medical College Health Unit, Pangappara	..
14. P.H. Centre, Poonthura	6
15. P.H. Centre, Puthenthope	12
16. Govt. Dispensary, Andoorikonam	6
17. " Karamana	6
18. " Nemom	..
19. " Valiathura	..
20. Palace Dispensary, Trivandrum	4
21. Raj Bhavan Dispensary, Trivandrum	..
22. Sreepadom Dispensary, Trivandrum	..
23. Bi-weekly Dispensary, Veli	..
24. Mobile Dental Hospital, Trivandrum	..

Nedumangad Taluk:

1.	Taluk Head Quarters Hospital, Nedumangad	..	81
2.	Primary Health Centre, Palode	..	24
3.	„ Kallara	..	5
4.	„ Vamanapuram	..	12
5.	„ Kanyakulangara	..	14
6.	„ Vellnad	..	..
7.	M.C.H. Centre, Vidura	..	20
8.	Govt. Dispensary, Pullampara	..	..
9.	Govt. Malaria Dispensary, Arayanad	..	..
10.	Temporary Malaria Dispensary, Kallikad	..	..
11.	„ Kattakada	..	..
12.	Open Jail Dispensary, Nettukalthery	..	..

Chirayinkil Taluk:

1.	Govt. Hospital, Chirayinkil	..	93
2.	P.H. Centre, Vakkom	..	12
3.	„ Manampoor	..	10
4.	„ Kesavapuram	..	6
5.	„ Anjengo	..	26
6.	Govt. Dispensary, Attingal	..	29
7.	„ Warkala	..	36
8.	„ Thonipara	..	6

QUILON DISTRICT

Quilon Taluk:

1.	District Hospital, Quilon	..	385
2.	Victoria Hospital, Quilon	..	116
3.	P.H. Centre, Kundara	..	4
4.	„ Thrikkadavoor	..	8
5.	„ Mayyanad	..	30
6.	„ Kalakode	..	14
7.	T.B. Clinic, Quilon	..	..
8.	Govt. Dispensary, Paripally	..	6
9.	„ Perumon	..	18

Kottarakkara Taluk:

1.	Taluk Head Quarters Hospital, Kottarakkara	..	60
2.	Govt. Hospital, Kadakkal	..	25
3.	P.H. Centre, Nedumonkavu	..	6
4.	„ Kulakkada	..	12
5.	„ Velinelleor	..	..
6.	T.B. Clinic, Kottarakkara	..	24
7.	Govt. Dispensary, Chadayamangalam	..	4
8.	„ Thalachira	..	..
9.	„ Madathara	..	5

Pathanapuram Taluk:

	No. of beds
1. Govt. Hospital, Punalur	88
2. P.H. Centre, Pathanapuram	16
3. " " Anchal	..
4. Govt. " Dispensary, Kulathoopuzha	..
5. " " Pattazhi	..
6. Bi-weekly Dispensary, Thenmala	4
	10

Pathanamthitta Taluk:

1. Govt. Hospital, Kozhencherry	81
2. " " Pathanamthitta	16
3. Primary Health Centre, Elanthoor	6
4. " " Ranni	12
5. " " Konni	4
6. T.B. Clinic, Kozhencherry	12
7. Govt. Dispensary, Ranni-Perinad	4
8. " " Kadamnitta	4
9. " " Chennerkara	20
10. Vechurchira G.D.	..
11. Malaria Dispensary, Nedumathumoozhi	5

Kunnathur Taluk:

1. Govt. Hospital, Adoor	..
2. P.H. Centre, Soornad	..
3. " " Enadimangalam	55
4. Govt. " Dispensary, Kadambanad	16
5. " " Chandanapilly	..
6. " " Sasthamkottah	10
7. Tem. " Malaria Dispensary, Koodal	5
	4

Karunagapally Taluk:

1. Taluk Head Quarters Hospital, Karunagapally	..
2. Primary Health Centre, Mynagapally	46
3. " " Chavara	6
4. " " Thekkumbhagom	24
5. " " Ochira	..
6. Norwegian Primary Health Centre, Neendakara	..
7. T.B. Clinic, Karunagapally	40
8. Govt. Dispensary, Vallikavu	50
	..

ALLEPPEY DISTRICT

Ambalapuzha Taluk:

1. District Hospital, Alleppey
2. W. & C. Hospital, Alleppey

Amblapuzha Taluk—(cont.)

3.	Primary Health Centre, Chettikad	..	12
4.	.. Ambalapuzha	..	12
5.	Govt. Dispensary, Kalavoor	..	5

Sherthalai Taluk:

1.	Govt. Hospital, Sherthalai	..	124
2.	.. Thycattusseri	..	12
3.	P.H. Centre, Arookutty	..	8
4.	.. Perumbalam	..	..
5.	.. Thuravoor	..	12
6.	.. Muhamma	..	17
7.	Govt. Dispensary, Ezhupunna	..	4

Kuttanad Taluk:

1.	Primary Health Centre, Pulincunnu	..	20
2.	.. Champakulam	..	..
3.	Govt. Dispensary, Edathua	..	12
4.	.. Velianadu	..	..
5.	.. Thakazhi	..	8

Thiruvalla Taluk:

1.	Govt. Hospital, Thiruvalla	..	114
2.	Primary Health Centre, Ezhumattoor	..	16
3.	.. Kanjeettukara	..	8
4.	.. Chathankeni	..	6
5.	.. Mallappally	..	12
6.	Govt. Dispensary, Thelliyoar	..	24
7.	.. Niranom	..	..
8.	.. Kizhaken Othara	..	12
9.	.. Kotangal	..	..
10.	.. Kallooppara	..	..

Chengannoor Taluk:

1.	Govt. Hospital, Chengannoor	..	30
2.	Primary Health Centre, Mannar	..	4
3.	.. Pandanad	..	5
4.	.. Vallania	..	..
5.	Govt. Dispensary, Pandalam	..	6
6.	.. Venmony	..	4
7.	.. Cherianad	..	..

Mavelikara Taluk:

1.	Govt. Hospital, Mavelikara	..	132
2.	Leprosy Sanatorium, Noornad	..	794
3.	Primary Health Centre, Thumpamon	..	23
4.	.. Kurathikad	..	6

Mavelikara Taluk—(cont.)

5. Primary Health Centre, Chunakara	..	..
6. Govt. Dispensary, Vallikunnam	..	..

Karthikapally Taluk:

1. Govt. Hospital, Kayamkulam	..	55
2. " Haripad	..	73
3. Primary Health Centre, Muthukulam	..	8
4. " Thrikunnapuzha	..	6
5. T.B. Clinic, Karuvatta	..	..
6. Leprosy Centre, Kayamkulam	..	..
7. " Haripad	..	..

KOTTAYAM DISTRICT

Kottayam Taluk:

1. Medical College Hospital, Kottayam	..	55
2. Govt. Hospital, Thottakad	..	28
3. Primary Health Centre, Ettumanoor	..	7
4. " Kumarakom	..	14
5. " Paika	..	6
6. " Mundankunnu	..	1
7. " Athrampuzha	..	17
8. Govt. Dispensary, Pampady	..	16
9. " Parampuzha	..	6

Changanacherry Taluk:

1. Govt. Hospital, Changanacherry	..	56
2. Primary Health Centre, Karukachal	..	8
2. " Edayirikapuzha	..	..
3. Government Dispensary, Sachivothamapuram	..	42
4. " Vakathanam	..	8

Meenachil Taluk:

1. Taluk Headquarters Hospital, Palai	..	12
2. Government Hospital, Kuravilangad	..	24
3. " Ramapuram	..	36
4. Primary Health Centre, Uzhavoor	..	16
5. " Koodalloor	..	12
6. " Edamaruku	..	1
7. " Ullanad	..	6
8. Government Dispensary, Kadaplamattom	..	21
9. " Poonjar	..	22
10. " Erattupetta	..	12
11. Bi-weekly Dispensary, Kalaketty	..	..
12. " Koottikal	..	..

		<i>No of beds</i>
Kanjirappally Taluk:		
1.	Government Hospital, Kanjirappally	58
2.	„ „ Mundakayam	40
3.	Primary Health Centre, Erumeli	12
4.	Government Dispensary, Manimala	8
5.	„ „ Parathanam	4
Vaikom Taluk:		
1.	Government Hospital, Vaikom	88
2.	Primary Health Centre, Thalayolaparambu	22
3.	„ „ Arnoottimangalam	6
4.	„ „ Edayazham	6
5.	T.B. Clinic, Vaikom	..
6.	Government Dispensary, Kuruppanthara	..
7.	„ „ Brahmamangalam	6
8.	Bi-weekly Dispensary, Peruva	..
Devikulam Taluk:		
1.	Government Hospital, Chithirapuram	8
2.	Primary Health Centre, Adimalai	6
3.	Government Dispensary, Devikulam	9
4.	„ „ Marayur	..
5.	Bi-weekly Dispensary, Kallar	..
Peermade Taluk:		
1.	Primary Health Centre, Upputhura	18
2.	Government Dispensary, Kumily	4
3.	„ „ Perumadu	4
4.	„ „ Vandiperiyar	..
Udumbanchola Taluk:		
1.	Government Dispensary, Kallar Colony	6
2.	„ „ Vandanmedu	..
3.	Bi-weekly Dispensary, Santhampara	..

ERNAKULAM DISTRICT

Kanayannoor Taluk:		
1.	General Hospital, Ernakulam	673
2.	Government Hospital, Mulanthuruthy	20
3.	„ „ Thrippunithura	50
4.	Primary Health Centre, Nettur	..
5.	„ „ Keecherry	..
6.	„ „ Edappilly	14
7.	Government Dispensary, Poothotta	22
8.	„ „ Thrikkakara	..
	R.V.P. Dispensary, Trippunithura	..
10.	Government Dispensary, Arakunnam	4
11.	Bi-weekly Dispensary, Panangad	..

Cochin Taluk:

1.	Government Hospital,	Cochin	182
2.	"	Palluruthy	169
3.	"	Ayyampally	28
4.	Women and Children's Hospital,	Mattaucherry	102
5.	Primary Health Centre,	Narakkal	31
6.	"	Kumbalangi	16
7.	T.B. Clinic,	Palluruthy	40
8.	"	Fort Cochin	
9.	Government Dispensary,	Munambom	16
10.	"	Edavanakad	
11.	"	Malipuram	
12.	"	Kandakadavu	

Parur Taluk:

1.	Government Hospital,	Parur	112
2.	Primary Health Centre,	Ezhikara	6
3.	"	Varapuzha	6
4.	Government Dispensary,	Moothakunnam	10
5.	"	Puthenvelikara	4
6.	"	Ayiroor	3
7.	"	Koonnamavu	24

Alwaye Taluk :

1.	Government Dispensary,	Alwaye	120
2.	Primary Health Centre,	Ankamaly	20
3.	"	Kalady	16
4.	"	Keezhmedu	6
5.	"	Chengamanad	
6.	T.B. Clinic,	Alwaye	
7.	Government Dispensary,	Chowara	8
8.	"	Parakkadavu	4
9.	Bi-weekly Dispensary,	Kalamassery	

Kunnathunad Taluk :

1.	Government Hospital,	Kadayirippu	20
2.	"	Perumbavoor	50
3.	Primary Health Centre,	Vadavukode	6
4.	"	Vengoor	10
5.	Government Dispensary,	Kumarapuram	8
6.	"	Kottappady	
7.	Bi-weekly Dispensary,	Kodanadu	

Muvattupuzha Taluk :

1.	Taluk Head Quarters Hospital,	Muvattupuzha	116
2.	Government Hospital,	Koothattukulam	32
3.	"	Pothanicadu	
4.	"	Kothamangalam	

Muvattupuzha Taluk—(cont.)

5.	Government Hospital, Piravom	..	12
6.	Primary Health Centre, Ramainangalam	..	24
7.	„ Pandapally	..	10
8.	„ Varapetty	..	6
9.	„ Pampakada	..	18
10.	T.B. Clinic, Muvattupuzha	..	..
11.	Government Dispensary, Punnakad	..	4
12.	„ Elangy	..	14

Thodupuzha Taluk :

1.	Government Hospital, Thodupuzha	..	47
2.	Primary Health Centre, Purapuzha	..	6
3.	„ Muttom	..	..
4.	Government Dispensary, Arakulam	..	24
5.	„ Karimannoor	..	4
6.	„ Kalloorkad	..	6
7.	Bi-weekly Dispensary, Kodikulam	..	6

TRICHUR DISTRICT

Trichur Taluk:

1.	District Hospital, Trichur	..	626
2.	Maternity Hospital, Trichur	..	113
3.	Mental Hospital, Trichur	..	157
4.	K. V. Sanatorium, Mulankunnathukavu	..	296
5.	Government Hospital, Cherpu	..	34
6.	Primary Health Centre, Ollur	..	8
7.	„ Vellanikara	..	12
8.	„ Alappad	..	..
9.	„ Parappur	..	..
10.	Government Dispensary, Anthikad	..	12
11.	„ Triprayar	..	20
12.	„ Ramavarmapuram	..	..
13.	„ Mundur	..	..
14.	„ Pecchi	..	..
15.	Bi-weekly Dispensary, Pattikad	..	..
16.	„ Arimbur	..	..
17.	Central Jail Dispensary, Viyyur	..	..

Mukundapuram Taluk:

1.	Government Hospital, Irinjalakuda	..	91
2.	„ Pudukad	..	43
3.	„ Mala	..	35
4.	„ Kattur	..	36
5.	„ Chalakudy	..	125
6.	Leprosy Hospital, Koratty	..	610

Mukundapuram Taluk—(cont.)

7.	Primary Health Centre, Matathur	..	14
8.	" Aloor	..	12
9.	" Elanjipara	..	5
10.	" Puthenchira	..	12
11.	" Anandapuram	..	..
12.	Government Dispensary, Trikkur	..	..
13.	" Varandarappally	..	..
14.	" Kakkad	..	..
15.	Itinerant Dispensary, Vellikulangara	..	..

Cranganore Taluk:

1.	Government Hospital, Cranganore	..	62
2.	Primary Health Centre, Azhukode	..	..

Talappally Taluk:

1.	Government Hospital, Kunnankulam	..	65
2.	" Wadakan-cherry	..	70
3.	Primary Health Centre, Pazhayamur	..	24
4.	" Lrunapetty	..	8
5.	" Pazhanji	..	..
6.	Government Dispensary, Chelakara	..	12
7.	" Desamangalam	..	7
8.	Bi-weekly Dispensary, Velur	..	..
9.	" Kuttampally	..	..
10.	Lepet Clinic, Velur	..	..
11.	" Pazhangal	..	..

Chowghat Taluk:

1.	Government Hospital, Chowghat	..	..
2.	" Valappad	..	..
3.	Primary Health Centre, Kadapuram	..	..
4.	" Vadanappally	..	..
5.	" Mullamery	..	..
6.	" Peringannam	..	..

PALGHAT DISTRICT

Palghat Taluk:

1.	District Hospital, Palghat	..	354
2.	Primary Health Centre, Kongad	..	12
3.	Government Dispensary, Ilappully	..	16
4.	" Perli	..	8
5.	" Melamuri	..	..
6.	P.W.D. Dispensary, Malempuzha	..	..
7.	Forest Dispensary, Valayer	..	..
8.	Part-time Dispensary, Pudukkuzham	..	..

Alathur Taluk:

No. of beds

1.	Government Hospital, Alathur	..	44
2.	Primary Health Centre, Koyalmanna	..	36
3.	" Wadakkancherry	..	22
4.	" Pazhambalacode	..	..
5.	Government Dispensary, Kannambra	..	10
6.	" Kottayi	..	16

Chittur Taluk:

1.	Government Hospital, Chittur	..	73
2.	" Nenmara	..	64
3.	" Kozhinjampara	..	51
4.	P. H. Centre, Koduvayur	..	11
5.	" Nanniyode	..	12
6.	Government Dispensary, Kollengode	..	20
7.	" Ozhalapetty	..	5
8.	" Vadavannur	..	11
9.	Project Dispensary, Meenkara	..	..
10.	" Pothundy	..	..
11.	Iirurant Dispensary, Koipra	..	..
12.	" Kairady	..	..
13.	" Pullancherry	..	..
14.	" Meenakshipuram	..	..

Ottapalam Taluk:

1.	Government Hospital, Ottapalam	..	68
2.	Primary Health Centre, Ambalapara	..	..
3.	" Koppam	..	10
4.	" Kadampazhipuram	..	..
5.	Government Dispensary, Cheruplacherry	..	21
6.	" Shornur	..	12
7.	" Pattambi	..	16
8.	" Sreekrishnapuram	..	16
9.	" Kottapuram	..	..
10.	" Perur	..	5

Perinthalmanna Taluk:

1.	Government Hospital, Perinthalmanna	..	72
2.	" Mannarghat	..	37
3.	P. H. Centre, Alanallur	..	6
4.	" Mankada	..	12
5.	" Melathur	..	..
6.	Government Hospital, Agali	..	8
7.	Mobile Medical Unit, Agali	..	..
8.	Pilot Scheme Dispensary, Mukali	..	..

Poanani Taluk:

1.	Government Hospital, Poanani	..	54
2.	P. H. Centre, Andathode	..	6

Ponnani Taluk—(cont.)

3.	P. H. Centre,	Chalissery	..	..
4.	"	Thrikannapuram	..	12
5.	Government Dispensary,	Thrithala	..	6
6.	"	Palapetty	..	..
7.	"	Marancherry	..	..
8.	"	Kumbidi	..	..
9.	"	Edapal	..	..
10.	"	Kumaranalloor	..	..
11.	Leprosy Subsidiary Centre,	Edapal	..	..
12.	T. B. Clinic,	Ponnani	..	..

KOZHIKODE DISTRICT

Kozhikode Taluk:

1.	Medical College Hospital,	Calicut	1117
2.	General Hospital,	Calicut	286
3.	Mental Hospital,	Calicut	364
4.	Medical College Health Unit,	Chevayur	6
5.	Primary Health Centre,	Mukkom	6
6.	"	Narkunnu	6
7.	"	Thalakulathur	..
8.	"	Nadakavu	..
9.	Government Dispensary,	Kumaramangalam	14
10.	"	Thamarassery	..
11.	Regional Engineering Dispensary,	College Campus	..

Baddara Taluk:

1.	Taluk Head Quarters Hospital,	Badagara	143
2.	Government Hospital,	Nadapuram	25
3.	Primary Health Centre,	Valayam	6
4.	"	Kuttuadi	6
5.	"	Thiruvallloor	..
6.	"	Orkattery	12
7.	"	Naripettah	..

Kandiyandi Taluk:

1.	Taluk Head Quarters Hospital,	Quilandy	66
2.	Primary Health Centre,	Perambra	6
3.	"	Melaadi	6
4.	"	Balusseri	..
5.	"	Thiruvengoor	..
6.	Government Dispensary,	Meppayur	..
7.	H. E. Project Dispensary,	Kakkayam	..

Tirur Taluk:

1.	Taluk Head Quarters Hospital,	Tirur	..
2.	Primary Health Centre,	Vettom	..

Trirur Taluk — (cont.)

		No. of beds	
3.	Primary Health Centere, Naduva	..	..
4.	„ Kuttipuram	..	..
5.	„ Valavannur	..	6
6.	„ Vengara	..	..
7.	Government Dispensary, Thenur	..	..
8.	„ Chaliyam	..	..
9.	„ Tirurangadi	..	18
10.	„ Valancerry	..	..
11.	„ Parappanangadi	..	..
12.	„ Kottayi	..	..
13.	„ Kunnumpuram	..	..
14.	„ Pallipuram	..	..
15.	M.S.P. Dispensary, Klari	..	..

Ernad Taluk:

1.	Taluk Head Quarters Hospital, Manjeri	..	161
2.	Police Hospital, Malapuram	..	36
3.	Government Hospital, Nilambur	..	29
4.	Primary Health Centre, Edavanna	..	6
5.	„ Malapuram	..	6
6.	„ Wandoor	..	6
7.	„ Kondotty	..	6
8.	Government Dispensary, Arcacode	..	4
9.	„ Kallikavu	..	6
10.	Forest Dispensary, Karulai	..	..
11.	M. S. P. Dispensary, Pandicad	..	..
12.	„ Arcacode	..	..
13.	T.B. Clinic, Manjeri	..	..

South Wynad Taluk:

1.	Government Hospital, Vythiri	..	34
2.	P. H. Centre, Meenangadi	..	..
3.	Government Dispensary, Kalpettah	..	19
4.	„ Ambalavayal	..	25
5.	„ Sultan Battery	..	16
6.	Mobile Medical Unit, Kalpettah	..	..

CANNANORE DISTRICT

Cannanore Taluk:

1.	District Hospital, Cannanore	..	351
2.	Primary Health Centre, Pappinisery	..	..
3.	„ Payangadi	..	6
4.	„ Iriveri	..	6
5.	„ Azhikode	..	..
6.	Government Dispensary, Cherukunnam	..	..
7.	Central Jail Dispensary, Cannanore	..	46
8.	Leprosy Centre, Baliapatam	..	..

Tellicherry Taluk:

1.	Government Hospital, Tellicherry	..	6
2.	P. H. Centre, Pinarai	..	48
3.	P. H. Centre, Iritty	..	..
4.	Government Dispensary, Koothuparamba	..	..
5.	" " Mattannur	..	..
6.	" " Kizhpalli	..	..
7.	" " Peravoor	..	6
8.	Bi-weekly Dispensary, Kannavom	..	47
9.	Primary Health Centre, Panoor	..	..

North Wynad Taluk:

1.	Government Hospital, Mananthody	..	..
2.	P. H. Centre, Purannavore	..	20
3.	Government Dispensary, Peria	..	..
4.	" " Panamaram	..	..
5.	" " Vellamunda	..	..
6.	Forest Dispensary, Bagur	..	50

Taliparamba Taluk:

1.	Government Hospital, Taliparamba	..	376
2.	T.B. Sanatorium, Pariyaram	..	8
3.	P.H. Centre, Mayyil	..	34
4.	Government Dispensary, Payyannur	..	10
5.	" " Irrikur	..	12
6.	" " Karivelloor	..	..
7.	" " Parassunkadavu	..	..
8.	" " Naduvil	..	..
9.	" " Koothumughom	..	..
10.	Weekly Dispensary, Mathil	..	30

Hosdurg Taluk:

1.	Government Hospital, Hosdurg	..	6
2.	Primary Health Centre, Nileswar	..	8
3.	" " Peria	..	..
4.	Government Dispensary, Thrikkarpur	..	..
5.	" " Anandasramom	..	..
6.	" " Panathadi	..	..
7.	" " Mulleria	..	..
8.	Weekly Dispensary, Timiri	..	7

Kasargode Taluk:

1.	Taluk Headquarters Hospital, Kasargode	..	1
2.	Primary Health Centre, Kumbala	..	..
3.	" " Muliya	..	..
4.	Government Dispensary, Mangalpad	..	..
5.	" " Manjeswar	..	..
6.	" " Beyar	..	..
7.	" " Udma	..	..
8.	" " Bedadka	..	..
9.	Leprosy Centre, Perdala	..	..
10.	T. B. Clinic, Kasargode	..	..

TABLE I
Position of Institutions as on 31-12-1966

Institution	State	Trivandrum	Quilon	Alleppey	Kottayam	Ernakulam	Trichur	Palghat	Kozhikode	Cannanore
1	2	3	4	5	6	7	8	9	10	11
Hospital ..	105-15981	14-3538	9-872	10-2034	10-1017	17-1801	16-2439	11-841	11-2312	7-1127
Secondary Health Centre ..	1-108	1-108	..	..	..	..	..	..	..	..
P. H. Centre ..	162-1325	19-199	19-198	20-176	17-168	19-195	17-126	15-133	23-78	13-52
M.C.H. Centre ..	1-20	1-20	..	..	..	..	..	..	..	..
Dispensaries including T.B. Clinics ..	218-1249	21-97	22-181	17-175	24-168	29-201	18-51	32-162	24-114	31-200
Mobile Dental Hospital ..	1-0	..	..	..	..	..	..	..	..	..
Total ..	488-18683	57-3962	50-1251	47-2285	51-1353	65-2197	51-2616	58-1136	58-2504	51-1379

To get the position as on 31-3-1967—T. B. Clinic, Manjeri opened in February 1967

TABLE II-A—(cont.)

Institution	Result of I.P. Treatment			Out-patient			Remarks
	Discharge	Died	Remaining	Total	Male	Female	
	11	12	13	14	15	16	18
Quilon District—(cont.)							
P. H. Centre	495	49	128	734793	201520	314234	210739
Government Dispensary...	277	10	57	518102	143114	220384	144504
T.B. Clinic	8	15	48	19252	11112	6870	1470
				23501	15474	5973	2054
All	6051	698	578	765479	199914	332639	173926
All	1465	387	797	1780440	523518	780960	475962
All Institution	7516	1085	1375	2486919	723432	1113599	649828
Alleppey District—(cont.)							
Hospitals	8370	755	1387	963150	349200	373807	240143
P. H. Centres	482	147	1063	500653	162656	214603	123394
Dispensaries	189	64	204	1308664	382080	501295	425289
	34	20	38	651049	191917	267688	191444

I M.C.H. Unit Needs—
kara

TABLE II-A—(cont.)

Institution	Urban/ Rural	No.	Bed	In-patient				Result of I.P. Treatment	
				Total	Male	Female	Children	Cured	Relieved
1	2	3	4	5	6	7	8	9	10
Alleppey District—(cont.)									
T.B. Clinic	Urban	1	..	613	483	121	1	577	577
All	Urban	7	1125	50041	18640	22339	9062	30012	9481
All	Rural	40	1160	27599	9731	13507	4361	21888	3470
All Institutions	..	47	2285	77640	28371	35846	13423	51900	12951
Kottayam District									
Hospital	Urban	4	823	45414	15969	19288	10157	28915	12643
Centres	Rural	6	194	9987	2964	4878	2145	7964	1197
Cent Dispensary	Rural	17	168	7089	2114	2932	2013	6345	466
1	Rural	24	168	4552	1455	2044	1053	4074	256
1	Urban	4	823	45414	15969	19288	10157	28915	12643
..	Rural	47	590	21628	6533	9854	5241	18383	1919
..	..	51	1353	67042	22502	29142	15398	47298	14562

TABLE II-A—(cont.)

Institution	Result of I.P. Treatment			Out-patient				Remarks
	Discharge	Died	Remaining	Total	Male	Female	Children	
	11	12	13	14	15	16	17	18
Alleppey District—(cont.)								
T.B. Clinic	26	36	..	30000	15870	12250	1880	
All	8370	791	1387	993150	365070	386057	242023	
All	705	231	1305	2460366	736653	983586	740127	
All Institutions	9075	1022	2692	3453516	1101723	1369643	982150	
Kottayam District								
—(cont.)								
Hospital	1526	1071	1259	985811	379599	352310	252902	
P. H. Centres	528	74	224	345497	97841	142977	104679	
Government Dispensary	143	32	103	859927	219933	346929	293065	
	96	39	8722	756321	211679	277206	267436	
All	1526	1071	1250	985811	379599	353310	252902	
All	767	145	414	1961745	529453	767112	665180	
All Institutions	2293	1216	1673	2947556	909052	1120422	918082	

I M.C.H. Unit

TABLE 1. II-A--(cont.)

TABLE 12: H-A—(cont.)										
Institution	Urban/ Rural	No.	Beds	In-patient				Result of I.P. Treatment		
				Total	Male	Female	Children	Cured	Relieved	10
1	2	3	4	5	6	7	8	9		
Franklin District										
Hospitals	Urban	11	124	63011	28726	34285	16280	71976	6159	6159
"	Rural	9	277	22938	7719	15219	4103	19747	1372	1372
"	Rural	10	195	10759	3400	7359	2240	10073	216	216
P. H. Centers	Rural	27	161	20531	6870	13661	1761	19179	739	739
Government Dispensaries	Rural	2	40	899	511	388	..	..	831	831
"	Urban	2								
P. H. Clinic	Urban	10	1661	89912	26210	63702	16280	71976	720	720
All			631	31220	12917	28303	11101	40200	235	235
All	Rural	63	2107	140170	47167	93003	27001	121265	96	96
H. Institutions										
for Blind	Urban	11	101	10711	1781	2133	2133	33865	33865	33865
"	Rural	11	1067	57531	10994	27537	10587	20417	20417	20417
"	Rural	17	126	13559	4125	6100	1979	13010	13010	13010

TABLE II-A—(cont.)

Institution	Result of I.P. Treatment			Out-patient				Remarks
	Discharge	Died	Remaining	Total	Male	Female	Children	
	11	12	13	14	15	16	17	18
Alleppey District—(cont.)								
T.B. Clinic ..	26	36	..	30000	15870	12250	1880	
All ..	8370	791	1387	993150	365070	386057	242023	
All ..	705	231	1305	2460366	736653	983586	740127	
All Institutions ..	9075	1022	2692	3453516	1101723	1369643	982150	
Kottayam District								
—(cont.)								
Hospital ..	1526	1071	1259	985811	379599	352310	252902	I M.C.H. Unit
P. H. Centres ..	528	74	224	345497	97841	142977	104679	
Government Dispensary ..	143	32	103	859927	219933	346929	293065	
	96	39	8722	756321	211679	277206	267436	
All ..	1526	1071	1250	985811	379599	353310	252902	
All ..	767	145	414	1961745	529453	767112	665180	
All Institutions ..	2293	1216	1673	2947556	909052	1120422	918082	

TABLE II-A—(cont.)

Institution	Result of I.P. Treatment				Out-patients				Remarks
	Discharge	Died	Remaining	Total	Male	Female	Children		
	11	12	13	14	15	16	17	18	
Ernakulam District—(cont.)									
Hospital	1146	1622	1840	888661	250455	372522	265684		
P. H. Centres	1161	198	470	648535	179603	283703	185229		
Government Dispensaries..	226	65	149	946832	299686	358796	288350		
T. B. Clinic	116	44	153	1182600	257855	361784	562961		
	..	14	54	53589	28719	1412	12458		
All	1146	1636	1894	942250	279174	384934	278142		
All	1503	307	772	2777967	737144	1004283	1036540		
All Institutions	2649	1943	2666	3720217	1016318	1389217	1314682		
Trichur District—(cont.)									
Hospitals	4078	834	1434	548347	164023	225069	159255		
P. H. Centres	1190	480	1571	1012675	293359	416635	302688		
	155	51	125	646643	165696	245607	235340		

TABLE II-A—(cont.)

TABLE II-A--(cont.)									
Institution	Urban/ Rural	No.	Beds	In-patient				Result of I.P. Treatment	
				Total	Male	Female	Children	Cured	Relieved
1	2	3	4	5	6	7	8	9	10
Trichur District--(cont.)									
Government Dispensaries..									
	Rural	18	51	2879	1044	1356	497	2623	116
All	Urban	5	1052	49711	17852	23355	8504	33865	9500
All	Rural	46	1565	73981	25163	35755	13063	66089	4243
All Institutions	.. ..	51	2616	123692	43015	59110	21567	99954	13743
Palghat District									
Hospitals	Urban	2	427	28157	10656	11003	6498	18133	8045
Public Dispensaries { in Government Dispensaries..	Rural	9	398	26271	9985	11818	4468	19219	3044
	Urban	15	133	3760	1523	1818	419	3879	146
	Rural	1	178	5517	1951	2585	981	4357	771
	Urban	3	427	28157	10656	11003	6498	18133	8045
	Rural	54	709	35548	13459	16221	5808	26955	3961
	.. ..	..	1126	63705	24115	27224	12366	45088	12006

TABLE II-A—(cont.)

Institution	Result of I.P. Treatment			Out-patients				Remarks
	Discharge	Died	Remaining	Total	Male	Female	Children	
	11	12	13	14	15	16	17	18
Trichur District—(cont.)								
Government Dispensaries..	103	14	41	378625	97533	129086	152006	
All	4078	834	1434	548347	164023	225069	159255	
All	1367	545	1737	2037943	556588	791328	690027	
All Institution	5445	1379	3171	2586290	720611	1016397	849282	
Palghat District—(cont.)								
Hospitals	260	924	795	182825	69616	74994	38215	
..	2819	588	601	412269	149145	162592	100532	
P.H. Centres	98	52	85	313001	102128	127163	83710	
Government Dispensaries..	218	83	88	51774	13560	11298	26916	
				448584	168450	158704	121430	
All	260	924	795	234599	83176	86292	65131	
All	3135	723	774	1173854	419723	448459	305672	
All Institution	3395	1647	1569	1408453	502899	534751	370803	

TABLE II-A—(cont.)

Institution	Urban/ Rural	No.	Beds	In-patient			Result of I.P. Treatment	
				Total	Male	Female	Children	Cured Relieved
1	2	3	4	5	6	7	8	9 10
Kozhikode District								
Hospitals	Urban	4	1910	54364	21668	22627	10669	30248 11239
"	Rural	7	402	26991	12068	11533	3390	22736 2385
P.H. Centres	Rural	23	78	1657	450	1895	112	1349 180
Government Dispensaries..	Rural	24	114	5278	2294	2394	590	3414 1441
All	Urban	4	1910	54364	21668	22627	10669	30248 11289
All	Rural	54	594	33926	14812	15022	4092	27499 3926
All Institutions	"	58	2504	88290	36480	37049	14761	57747 15165
Channarayana District								
Hospitals	Urban	2	547	24588	9882	8852	5854	17923 3703
"	Rural	5	580	18925	7548	7853	3524	13624 3289
P.H. Centres	Rural	13	52	2538	989	1221	328	2008 205
Government Dispensaries..	Rural	31	200	4516	2028	1798	690	2937 1198
All	Urban	2	547	24588	9882	8852	5854	17923 3703
All	Rural	49	832	25979	10565	10872	4512	18769 4692
All Institutions	"	51	1379	50567	20447	19724	10396	36692 8395

TABLE II-A—(cont.)

Institution	Result of I.P. Treatment				Out-patients			Remarks
	Discharged	Died	Remaining	Total	Male	Female	Children	
	11	12	13	14	15	16	17	18
Kozhikode District—(cont.)								
Hospitals	8102	2071	2104	1223607	409542	460690	333375	1. M.C.H. Unit
	871	412	647	463397	174702	177735	110890	
P.H. Centres	132	2	14	1242175	367945	479519	394711	
Government Dispensaries..	237	69	117	836219	290442	301415	244362	
All	8462	2071	2404	1223607	409542	460690	333375	
All	1240	483	778	2541721	833089	938669	749963	
All Institutions	9642	2554	3182	3765328	1242631	1419359	1103338	
Cannanore District—(cont.)								
Hospital	1231	1011	720	446040	191697	169115	82228	
	658	393	761	262452	102381	105046	55025	
P.H. Centres	89	18	218	358230	133118	145192	79920	
Dispensaries	180	43	158	496773	187786	189065	119922	
All	1231	1011	720	446040	191697	169115	82220	
All	927	454	1137	1117455	423285	439303	254867	
All Institutions	2158	1465	1857	1563495	617932	608118	337095	

(cont.)

Institution	Urban/ Rural	No	Beds	In-patients				Result of I.P. Treatment	
				Total	Male	Female	Children	Cured	Relieved
1	2	3	4	5	6	7	8	9	10
State									
Hospital	Urban	45	10725	483944	171876	219333	92755	308546	108705
	Rural	61	5256	231060	81849	106759	43052	188765	24419
S.H. Centre	Urban	1	108	12752	3612	4693	4447	12187	265
P.H. Centre	Rural	162	1325	70475	23155	33860	13460	64816	2531
Dispensaries	Urban	7	33	1026	208	614	204	904	82
	Rural	203	1164	51853	18161	23514	10163	44344	5116
T.B. Centre	Urban	5	52	1701	1122	565	14	246	1481
	Rural	3	86	371	274	95	2	592	30
M.C.H. Centre	Rural	1	20	709	221	378	110	592	31
All	Urban	58	10918	499423	176318	225205	97400	321637	110533
All	Rural	430	7765	355073	123660	164606	66307	298763	32199
All Institutions	..	488	18683	854495	300478	389811	164207	620400	142732

TABLE II-C
Dental Clinics Activities of Dental Clinics during 1966

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Serial number	Name and address of Dental Clinic	Name, address and qualification of Dental Surgeon	No. of beds authorised	No. of patients treated	In-patients				Out-patients			
					Between 1 and 14 years	Above 14 years	Total	Monthly average	Between 1 and 14 years	Above 14 years	Total	Monthly average
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Dental Department General Hospital Trivandrum	Dr. Peter Christian L.D.S.C. (Bombay)	8	20145	..	..	402	25	..	..	19743	1545
2	Mobile Dental Hospital, Trivandrum	Dr. A. Mohammed Iqbal B.Sc. B.D.S	..	3760	..	..	..	..	..	..	..	..
3	Dental College, Trivandrum	Dr V. Subramoniam B.Sc., B.D.S., M.D.S, F.I.C.D., Director	4	29250	132	1602	1734	144	6349	21167	27516	2293
4	Dental Department, District Hospital, Quilon	Dr. Ravindranathan, B.Sc., B.D.S.	..	10061	111	319	430	35.8	1214	8407	9621	801.7

TABLE II-C---(cont.)

Serial number	Name and address of Dental Clinic	Mobile Clinic				Nature of treatment given						School/College Services			
		1 to 14 years	Above 14 years	Total	Monthly average	X-ray	Operation and extraction	Periodontitis	Ortho Dentia	Prosthetics	Special	No. of Schools examined	No. examined	No. found defective	No. of students whose defects corrected
		14	15	16	17	18	19	20	21	22	23	24	25	26	27
1	Dental Department, General Hospital, Trivandrum---(cont.)	..	..	..	..	85	15425	..	..	..	112	..	..	..	..
2	Mobile Dental Hospital, Trivandrum---(cont.)	230	3530	3760	564	..	2730	170	..	..	238	..	..	..	..
3	Dental College, Trivandrum---(cont.)	..	..	..	..	1863	22892	1635	1595	504	1757	..	..	..	..
4	Dental Department, District Hospital, Quilon---(cont.)	..	..	..	..	133	8034	1586	..	..	298	22	8357	2221	1919

TABLE II-C—(cont.)

Serial number	Name and address of Dental Clinic	Name, address and qualification of Dental Surgeon	No. of beds authorised	No. of patients treated	In-patients				Out-patients			
					Between 1 and 14 years	Above 14 years	Total	Monthly average	Between 1 and 14 years	Above 14 years	Total	Monthly average
1	2	3	4	5	6	7	8	9	10	11	12	13
5	Dental Department, District Hospital, Alleppey	Dr. P. J. Varghese, L.D.S.	4	10304	59	189	248	20	413	9643	10056	838
6	Dental Clinic, Govt. Hospital, Mavelikara	Dr. K. P. Venugopal, B.D.S.	..	8010	..	..	..	..	950	7060	8010	668
7	Dental Clinic, Govt. Hospital, Thiruvella	Dr. K. J. Alexander, B.D.S.	..	7395	10	20	30	..	1365	6000	7365	..
8	Dental Clinic, P. H. Centre, Mannar	Dr. P. G. Gopinatha Pillai, B.D.S.	..	2286	..	..	..	..	288	1998	2286	..

TABLE II-C—(cont.)

Serial number	Name and address of Dental Clinic	Mobile Clinic				Nature of treatment given							School/College Services			
		1 to 14 years	Above 14 years	Total	Monthly average	X-ray	Operation and extraction	Periodontitis	Ortho Dentia	Prosthesis	Special	No. of Schools examined	No. examined	No. found defective	No. of students whose defects corrected	
		14	15	16	17	18	19	20	21	22	23	24	25	26	27	
5	Dental Department, District Hospital, Alleppey	..	..	..	..	..	216	8101	..	..	60	..	..	..	..
11	Dental Clinic, 7th Govt. Hospital, Marakkara	..	..	..	..	200	350	23	..	..	15	..	..	..	..
2	Dental Clinic, 1st Govt. Hospital, Chinnalla	..	..	..	..	88	7000	2500	..	..	50	..	..	..	..
	Dental Clinic, P. M. S. Hospital, Marakkara	..	..	..	..	..	2105	133	48	..	..	..	..	..	..

TABLE II-C—(cont.)

Serial number	Name and address of Dental Clinic	Staff				Names of five most common diseases	Remarks
		Designation	Hon :/ Part-time/ Full-time	Male/ Female	Pay scale Rs.		
		28	29	30	31	32	33
5	Dental Department, District Hospital, Alleppey	Dental Surgen	1 Full-time	Male	300-600	1. Pyorrhea 2. Periodontia 3. Expiosis 4. Stomatitis	
6	Dental Clinic, Govt. Hospital, Mavelikara	Dental Surgen	1 do.	do.	300-600	1. Dental caries 2. Dental abscess and cellulitis 3. Periodontitis 4. Periodontal abscess 5. Peripheral cyst 6. Periodontosis	
7	Dental Clinic, Govt. Hospital, Thiruvella	Dental Surgen	1 do.	do.	300-600	Acute Osteomyelitis, Dental caries, Periodontitis, Perio- dontitis, Gingivitis	
8	Dental Clinic, P. H. Centre, Mannar	Dental Surgen	1 do.	do.	300-600	1. Dental caries 2. Chronic Perio- dontitis 3. Dental abscess	Doctor was avail- able from 1-3-66 to 15-3-66 and from 1-11-66 to 1-12-66

TABLE II-C—(cont.)

Serial number	Name and address of Dental Clinic	Name, address and qualification of Dental Surgeon	No. of beds authorized	No. of patients treated	In-patients				Out-patients			
					Between 1 and 14 years	Above 14 years	Total	Monthly average	Between 1 and 14 years	Above 14 years	Total	Monthly average
1	2	3	4	5	6	7	8	9	10	11	12	13
9	Dental Department, Medical College Hospital, Kottayam	1. Dr. N. A. R. Varma, B.Sc., B.D.S. 2. Dr. P. C. Cherian, L.D.S.	4	38360	12	48	60	5	1825	36475	38300	3000
10	Dental Clinic, Government Hospital, Vailom	Dr. T. G. Daniel, L.D.S.	..	4043	..	..	..	..	1002	3041	4043	337
11	Dental Clinic, Government Hospital, Palai	Dr. Antony J. Malialal, B.Sc., B.D.S.	..	4496	..	..	..	..	913	3553	4466	376
	Dental Clinic, Government Hospital, Changanacherry	Dr. Abraham Varughese, B.Sc., B.D.S.	..	5776	..	16	16	1.4	1280	4400	5760	480

TABLE II-C—(cont.)

Serial number	Name and address of Dental Clinic	Mobile Clinic				Nature of treatment given						School/College Services			
		1 to 14 years	Above 14 years	Total	Monthly average	X-ray	Operation and extraction	Periodontitis	Ortho Dentia	Prosthesis	Special	No. of Schools examined	No. examined	No. found defective	No. of students whose defects corrected
		14	15	16	17	18	19	20	21	22	23	24	25	26	27
9	Dental Department, Medical College Hospital, Kottayam	..	..	..	..	..	21900	15	..	..	2	..	..	..	..
10	Dental Clinic, Government Hospital, Vaikom	..	..	..	..	..	2409	1526	..	108	..	..	..	..	..
11	Dental Clinic, Government Hospital, Palai	..	..	..	..	..	4201	..	..	..	2	..	..	..	..
12	Dental Clinic, Government Hospital, Changanacherry	..	..	..	..	..	3520	..	..	3	..	..	..	..	..

TABLE II-C—(cont.)

Serial number	Name and address of Dental Clinic	Staff				Pay scale Rs.	Names of five most common diseases	Remarks
		Designation	Hon : / Part-time/ Full-time	Male/ Female				
		28	29	30	31	32	33	
9	Dental Department, Medical College Hospital, Kottayam	Dental Surgeon	Z.I. Hon : 2 Full-time	Male do.	150 300-600	1. Dental caries 2. Periodontitis 3. Dental abscess 4. Impaction 5. Oral cancer and Lymphoplasia		
10	Dental Clinic, Government Hospital, Valam	Dental Surgeon	1 Hon	do	150	1. Dental caries 2. Periodontitis 3. Stomatitis 4. Cyst 5. Fracture 6. Caries 7. Pericoronitis 8. Gingivitis 9. Alveolar abscess		
12	Dental Clinic, Government Hospital, Changanassery	Dental Surgeon	1 Hon 1 Full-time	do	300-600	1. Gum disease 2. Pyorrhea 3. Root abscess 4. Periodontitis 5. Dental caries 6. Orthodontics		

TABLE II-C—(cont.)

Serial number	Name and address of Dental Clinic	Name, address and qualification of Dental Surgeon	No. of beds authorised		No. of patients treated	In-patients				Out-patients			
			4	5		Between 1 and 14 years	Above 14 years	Total	Monthly average	Between 1 and 14 years	Above 14 years	Total	Monthly average
1	2	3				6	7	8	9	10	11	12	13
13	Dental Clinic, General Hospital, Ernakulam	Dr. T. K. Sreedharan, B.D.S.	5	29636		98	714	812	67	1908	26916	28824	2402
14	Dental Clinic, Government Hospital, Palluruthy	Dr. A. K. Itan, L.D.S. (Cal.)	..	13811		..	..	..	..	4322	9282	13811	1151
15	Dental Clinic, Government Hospital, Alwaye	Dr. M. K. Mammen, L.D.S. (Cal.)	..	4297		..	..	..	..	615	3682	4297	358
16	Dental Clinic, Government Hospital, Moovatupuzha	Dr. P. G. Jacob, L.D.S., S.M.F.	..	7236		25	37	62	5	2740	4496	7236	602
17	Dental Clinic, District Hospital, Trichur	Dr. V. J. Varghese, L.D.S.	..	23060		10	123	133	11	5112	17815	22927	1910

TABLE II-C—(cont.)

Serial number	Name and address of Dental Clinic	Mobile Clinic				Nature of treatment given						School/College Services			
		1 to 14 years	Above 14 years	Total	Monthly average	X-ray	Operation and extraction	Periodontitis	Orthodontia	Prosthetics	Special	No. of Schools examined	No. examined	No. found defective	No. of students whose defects corrected
13	Dental Clinic, General Hospital, Ernakulam	..	..	..	..	348	21645	3744	..	..	561	..	..	..	..
14	Dental Clinic, Government Hospital, Palluruthy	..	..	..	..	..	13911	..	..	..	..	..	..	..	..
15	Dental Clinic, Government Hospital, Alwayseental Clinic, Government Hospital, Moovakkuzha	..	..	..	..	..	2512	..	..	..	..	..	..	..	..
		..	..	..	..	..	44	5975	138	..	68	..	..	..	..
	Dental Clinic, District Hospital, Trichur	..	..	..	..	..	23	13925	5612	..	17	..	..	..	..

TABLE II-C—(cont.)

Serial number	Name and address of Dental Clinic	Staff				Rs.	Names of five most common diseases	Remarks
		Designation	Hon :/ Part-time/ Full-time	Male/ Female	Pay scale			
		28	29	30	31	32	33	
13	Dental Clinic, General Hospital, Ernakulam	Dental Surgeon	1 Full-time	Male	300-600	1. Pyorrhoea 2. Caries 3. Gingivitis 4. Pericorinitis 5. Dental Cyst		
14	Dental Clinic, Government Hospital, Palluruthy	Dental Surgeon	1 Hon:	Male	150	1. Caries 2. Pyorrhoea 3. Gingivitis 4. Periodontitis 5. Stomatitis		
15	Dental Clinic, Government Hospital, Alwaye	Dental Surgeon	1 Hon:	Male	150	1. Caries 2. Pyorrhoea 3. Stomatitis 4. Erosion 5. Pulpitis		
16	Dental Clinic, Government Hospital, Moovatupuzha	Dental Surgeon	1 Hon:	Male	150	1. Caries 2. Pyorrhoea 3. Stomatitis 4. Erosion 5. Pulpitis		
17	Dental Clinic, District Hospital, Trichur	Dental Surgeon	1 Full-time	Male	300-600	1. Periodontal disease 2. Dental Caries 3. Abscess, etc.		

TABLE II.C—(cont.)

Serial number	Name and address of Dental Clinic	Name, address and qualification of Dental Surgeon	No. beds authorised	No. of patients treated	In-patients						Out-patient			
					Between 1 and 14 years	Above 14 years	Total	Monthly average	Between 1 and 14 years	Above 14 years	Total	Monthly average		
1	2	3	4	5	6	7	8	9	10	11	12	13		
18	Dental Clinic, P H. Centre, Vellankara	Dr. Louis Thopie, B.D.S.	.	5820	..	..	..	..	1712	3118	5820	485
19	Dental Clinic, District Hospital, Palghat	Dr. M. J. Toze, B.D.S.	6	6449	12	21	43	3.5	1087	5362	6449	537		
20	Dental Clinic, Medical College Hospital, Calicut	Dr V. K. Kaleesan, B Sc, B D S	5	18000	6	194	140	11.5	6000	12000	18000	1500		
21	Dental Clinic, General Hospital, Calicut	Dr. N. A. Balachandran	.	3425	..	13	13	1	.	..	3426	285		
	Dental Clinic, M.C.H. Unit, Cherappu	Dr. V. K. Kaleesan, B Sc., B D S.	..	218	..	.	.	.	52	164	218	48
	Dental Clinic, District Hospital, Cannanore	Dr. Abraham Mathew, B.D.S.	4	7760	11	94	45	4	792	6803	7715	647		

TABLE II-C—(cont.)

Serial number	Name and address of Dental Clinic	Mobile Clinic				Nature of treatment given						School/College Services			
		1 to 1½ years	Above 1½ years	Total	Monthly average	X-ray	Operation and extraction	Periodontitis	Ortho Dentia	Prosthesis	Special	No. of Schools examined	No. examined	No. found defective	No. of students whose defects corrected
		14	15	16	17	18	19	20	21	22	23	24	25	26	27
18	Dental Clinic, P.H. Centre, Vellanikara	..	..	..	..	..	4376	..	..	4	..	..	..	..	..
19	Dental Clinic, District Hospital, Palghat	..	..	..	..	..	6449	..	..	..	15	..	..	..	..
20	Dental Clinic, Medical College Hospital, Calicut	..	..	..	..	600	7500	7000	..	..	15	..	..	..	..
21	Dental Clinic, General Hospital, Calicut	..	..	..	..	..	3926	..	..	..	..	..	..	..	..
22	Dental Clinic M.C.H. Unit, Cherupa	..	..	..	..	..	147	71	..	..	..	10	2113	311	262
23	Dental Clinic, District Hospital, Cannanore	..	..	..	..	21	4869	192	45	..	154	..	..	..	..

TABLE II-C—(cont.)

Serial number	Name and address of Dental Clinic	Staff				Pay scale	Names of five most common diseases	Remarks
		Designation	Hon./ Part-time/ Full-time	Male/ Female	Ra.			
		28	29	30	31	32		
18	Dental Clinic, P. H. Centre, Vellanikara	Dental Surgeon	Full-time	Male	300-600	1. Dental Caries 2. Gingivitis 3. Periodontitis 4. Abrasion 5. Periodontitis		
19	Dental Clinic, District Hospital, Palghat	Dental Surgeon	do	Male	300-600	1. Caries 2. Gingivitis 3. Root abscess, etc.		
20	Dental Clinic, Medical College Hospital, Calcut	Demonstrator in Dentistry Dental Hygienist	do do	Male Female	300-600 90-190	1. Periodontitis 2. Dental Caries 3. Alveolar abscess		
21	Dental Clinic, General Hospital, Calcut	Dental Surgeon	do.	Male	200-600	1. Caries 2. Pyorrhea 3. Gingivitis 4. Alveolar abscess 5. Gumboil		
	Dental Clinic, MCH Unit, Cherupa	Demonstrator in Dentistry	do	Male	300-600			Dental Clin c, conducted once in a week
	Dental Clinic, District Hospital, Cannanore	Dental Surgeon Dental Hygienist Nursing Assistant	Hon. Full-time do.	Male Female Male	150 90-190 65-85	1. Caries 2. Dental abscess 3. Periodontitis 4. Pericoronitis 5. Gingivitis		

TABLE II-D
Statement showing the activities in V. D. Clinics attached to different institutions

Name of institution to which attached	General Hospital, Trivandrum			Medical College Hospital, Trivandrum			W. & C. Hospital, Trivandrum	District Hospital, Quilon
	1	2	3	3	4	5		
No. of new cases treated during the year	..	979	1675	1675	9	828		
No. of old cases treated during the year	..	2500	1712	1712	..	3009		
Total attendance of V.D. cases	..	3379	3387	3387	9	3837		
Syphilis—Primary	..	300	375	34	12	5	158	
—Secondary	..	49	54	72	35	4	75	
—Latent (Early and late)	25	11	..	66	
—Benign	61	26	30	..	..
—Cardiovascular	6	
—Neurosyphilis	..	11	11	..	..	..	2	
—Congenital	3	
Gonorrhoea	..	266	378	197	16	..	182	
Chancroid	27	4	..	44	
Lymphogranuloma Venerum	69	5	..	84	
Inguinale	2	1	..	..
Non-specific brethratis	88	8	..	..
Others	581	496	..	208	
Total	..	626	879	1121	618	9	828	
		192	61	6	1745			

VYABH. II-D--(cont.)

Name of institution to which attached	District Hospital, Trichur		District Hospital, Palghat	Medical College Hospital, Kozhikode	
	Male	Female	Children	Total	Total
No. of new cases treated during the year	9		10		11
No. of old cases treated during the year	756		462		697
	718		2135		533
Total attendance of V.D. cases	1474		2597		1225
Syphilis--Primary --Secondary --Latent (Early and late) --Benign --Cardiovascular --Neurosyphilis --Congenital Gonorrhoea Chancroid Lymphogranuloma Venereum Inguinale Non-specific proctitis Others	Male	Female	Children	Total	Total
	140	4	..	144	79
	39	8	..	47	102
	61	25	..	86	14
	18	6	..	24	..
	7	1	..	8	..
	11	..	..	11	1
	4	..	..	4	..
	156	15	..	171	226
	76	..	..	76	63
	4	2	..	6	31
	179	..	..	179	6
	..	..	..	..	165
Total	695	61	..	756	697
					533

TABLE II-D—(cont.)

Name of institution to which attached	1	General Hospital, Trivandrum	2	Medical College Hospital, Trivandrum	W. & C. Hospital, Trivandrum	District Hospital, Quilon
Epidemiological activities inter-viewed						
Lab. activities—Total No. of T.S. done	186	..	..
No. reactive	100	8229	..	1258
No. non-reactive	54	671	..	251
No. of ante-natal cases	46	7536	..	1007
No. of D.F. done	876	..	..
No. Positive	32	..	..
Doubtful	844	..	..
Negative	238	..	..
No. of smears for G.C.	153	..	..
Positive	105	..	..
Doubtful	662	..	..
Negative	381	..	..
No. of P.A.M. used for treatment of V.D. cases	..	1500 vials	..	281	..	779 vials

TABLE II-D—(cont.)

Name of institution to which attached	District Hospital, Alleppey	Medical College Hospital, Kottayam	District Hospital, Ernakulam
	6	7	8
Epidemiological activities inter-viewed	..	..	..
Lab activities—Total No. of T.S. done	659	..	166
No. reactive	60	..	146
No. non-reactive	599	..	20
No. of ante-natal cases	..	..	..
No. reactive	..	..	..
No. non-reactive	..	21	..
No. of D.F. done	..	148	..
No. Positive	..	..	..
No. Doubtful	..	65	118
Negative	78	374	69
No. of smears for G. C.	67	274	49
Positive	..	100	..
Doubtful	ii	..	..
Negative	..	2098 vials	5000
No. of P.A.M. used for treatment of V.D. cases	2680 cc.	..	..



5	T.B. Centre, Trivandrum	Major (200 M.A. static X-ray with 70 MM rollfilm camera and tomography equipment 100 M.A. mobile X-ray Machine fitted in a heavy duty vehicle Minor — 1 (15 M.A. screening Unit 1. 200 M.A. Semen's plant with facilities for fluoroscope —1 2. Semen's portable X-ray unit —1	(1) Ultra therm (semen's) (2) U.V. lamp —1
6	S.A.T. Hospital, Trivandrum		
1	QUILON DISTRICT District Hospital, Quilon	Major — 1	{ Infra red —1 Ultra violet —1 apparatus —1 Screen —1 Fluoroscope —1 Fluoroscope —1
2	T.B. Clinic, Quilon	Major — 1	
3	T.B.C. Kottarakara	Major — 1	
4	T.B.C. Kozhencherry	Minor — 1 (50 M.A. portable)	
1	ALLEPPEY DISTRICT	Major — 1	
2	District Hospital, Alleppey Govt. Hospital, Mavelikkara	Major — 1 (100 M.A.)	

TABLE II-E
Availability of X-ray during the year 1966

Sl. No.	Name of institution	No. of diagnostic units	No. of therapeutic units	Remarks
1	2	3	4	5
	TRIVANDRUM DISTRICT	6	3	
1	Medical College Hospital, Trivandrum	500 M. A. Units 200 M. A. Units Skull Unit Portable X-ray Unit	—2 Channel Therapy unit —1 Deep X-ray unit —1 (250 K.V.) —2 Tale Coda unit	1 1 1
2	General Hospital, Trivan- drum	Major Minor	—1 Superficial —1 Deep	1 1
3	Mental Hospital, Trivan- drum	Apparatus for screening	1 Apparatus for Indects therapy	Out of order
4	T.B. Hospital, Pulayanar- cottah	Major—200 M.A. at 100 K.V. Vertical cable as well as radiograph unit Odelca Camera 70 MM Violet-cum-super Red lamp Short wave Liathermy	—1 —1 —1 —1 —1	

Each X-ray machine
camera and 100 M.A.
phys. equipment 100 M.A.
mobile X-ray Machine

5	T.B. Centre, Travandrum	Major (200 M.A. static X-ray with 70 MM softfilm camera and tomogra- phy equipment 100 M.A. mobile X-ray Machine fitted in a heavy duty vehicle Minor — 1 (15 M.A. screening Unit 1. 200 M.A. Semen's plant with facilities for fluoroscope — 1 2. Semen's portable X- ray unit — 1	(1) Ultra therm (Semen's) (2) U.V. lamp — 1
6	S.A.T. Hospital, Trivan- drum	Major — 1 (15 M.A. screening Unit 1. 200 M.A. Semen's plant with facilities for fluoroscope — 1 2. Semen's portable X- ray unit — 1	(1) Ultra therm (Semen's) (2) U.V. lamp — 1
1	Quilon District Mabula Hospital, Quilon	Major — 1	(1) Infra red (2) Ultra violet apparatus — 1 Screen — 1 Fluoroscope — 1 Fluoroscope — 1
2	P.B. Club, Chitham P.B. Club, Kottalathur P.B. Club, Kottalathur	Major — 1 Major — 1 Minor — 1 (50 M.A. por- table)	(1) Infra red (2) Ultra violet apparatus — 1 Screen — 1 Fluoroscope — 1 Fluoroscope — 1
3	Mabula Hospital, Quilon	Major — 1	(1) Infra red (2) Ultra violet apparatus — 1 Screen — 1 Fluoroscope — 1 Fluoroscope — 1
4	Mabula Hospital, Quilon	Major — 1	(1) Infra red (2) Ultra violet apparatus — 1 Screen — 1 Fluoroscope — 1 Fluoroscope — 1

TABLE II-E—(cont.)

Sl. No.	Name of institution	No. of diagnostic units	No. of therapeutic units	Remarks
1	2	3	4	5
3	ALLEPPEY DISTRICT—(cont.) Govt. Hospital, Thiruvalla	Major — 1 (15 M.A.)		
1	KOTTAYAM DISTRICT			
2	District Hospital, Vaikom	Major — 1		
	M.C.H., Kottayam	Major — 1 (200 M.A. Diagnostic unit) 1 (100 M.A. UV unit)	1 contact unit Monopar	
1	ERNAKULAM DISTRICT			
	General Hospital, Ernakulam	Minor — 1 (50 M.A. Extent unit) 1 Portable X-ray unit G.F.		
		Major — 2 Minor — 1	Superficial Deep	1 1

4 Govt. Hospital, Parur
5 Govt. Hospital, Cochin
6 T.B. Centre, Palluruthy

1 R Unit available

1 Infra red unit

1 Ultra violet wave
 2 Ultra violet
 3 ECG apparatus
 * Screening unit

3	Govt. Hospital, Palluruthy	Minor — 1
4	T.B. Clinic, Moovattupuzha	Minor — 1
5	Govt. Hospital, Parur	Minor — 1
6	T.B. Centre, Cochin	1-30 M.A. unit
	T.B. Centre, Palluruthy	Minor — 1
TRICHUR DISTRICT		
1	District Hospital, Trichur	Major — 1 (100 M.A.)
2	Wadakkancherry	Minor — 1
3	K.V. Sanatorium, Mulankunnathukavu	Major — 1 (100 M.A.)
4	Govt. Hospital, Chowghat	Major — 1
5	Govt. Hospital, Chalakudy	Minor — 1 (50 M.A.)
PALGHAT DISTRICT		
1	District Hospital, Palghat	Major — 1
	Govt. Hospital, Ponnani*	Minor — 1
	Govt. Hospital, Alathur	Minor — 1
	Govt. Hospital, Ottapalam	Minor — 1
	T.B. Centre, Ponnani	Minor — 1

TABLE II-P
Statement showing the activities of the blood banks

Sl. No.	Name of institution	No. of donors voluntary	No. of donors paid	Amount of blood collected	No. of transfused	Remarks
1	Medical College Hospital, Trivandrum	1643	2315	1088.45 litres	3958	
2	General Hospital, Trivandrum	160	..	40 "	160	
3	W. & C. Hospital, Trivandrum	9	253	65.00 "	256	
4	District Hospital, Quilon	327	461	286.400 c.c.	764	
5	Medical College Hospital, Kottayam	885	1697	865 litres	2095	
6	District Hospital, Alleppey	145	344	171.15 "	489	
7	General Hospital, Ernakulam	1126	321	394.1 "	1174	
8	Government Hospital, Cochin	8	69	306.05 "	76	
9	District Hospital, Trichur	604	141	186.25 "	745	
10	District Hospital, Palghat	164	168	106.9 "	327	
11	Medical College Hospital, Calicut	4678	977	346.00 "	1155	611 private
	" Calicut-8		116	746 "	735	
	General Hospital, Calicut	24	196	770 "	220	
	District Hospital, Cannanore	267	48	89.23 "	315	



TABLE III—(cont.)

Place	TABLE III—(cont.)									
	Deliveries conducted by P.H. midwives		P.P. visits	Total No. of births in the area	Still birth	Infant death	Maternal death	No. of clinics held		
	Institution	Field								
	9	10	11	12	13	14	15	16		
Trivandrum										
Quilon	1840	5108	24778	10634	141	141	10	5533		
Alleppey	1857	6475	28815	11574	291	222	25	6101		
Kottayam	1651	6463	2470	14579	158	356	28	5750		
Ernakulam	502	4596	19912	9499	118	144	12	3883		
Trichur	1353	10423	26808	17341	331	336	16	5224		
Palghat	1086	11824	40771	19967	334	359	13	6237		
Kozhikode	384	7327	35578	15645	454	420	33	5465		
Cannanore	462	9306	41209	24662	369	272	30	6904		
	292	9018	35290	12237	226	162	15	4834		
Total	9427	70540	256381	136138	3422	2412	177	50043		
Sort from Municipalities and Corporations	418	7967	46843	9626	212	89	18	2454		
Sort from Panchayats	161	4255	9501	3421	74	37		5751		
Grand total	10006	82764	313075	149185	2703	2338	195	58248		



TABLE IV
(Malaya B)
Active surveillance in the maintenance phase
URBAN: 2.8 MILLION
POPULATION COVERED: RURAL: 17.19 MILLION

Serial No.	District	No. of C.D. Blocks	No. of P.H.Cs. and hospitals, etc.	No. of peripheral workers		Fever cases detected	No. given presumptive treatment with 4 aminoquinolines	Positive cases			Number re-lapsed after R.T.
				Basic Health Workers	Health Assistants			Number detected	R.T. Number given	Number detected	
1	2	3	4	5	6	7	8	9	10	11	
1	Tiruvandrum	12	41	63	83	37463	37005	2	2	2	..
2	Quilon	17	41	117	94	81103	64438	14	13	13	3
3	Alleppey	17	40	55	86	45993	44555	4	4	4	1
4	Kottayam	13	46	102	78	50961	52419	1	1	1	..
5	Ernakulam	17	49	74	79	39189	37872	..	..	..	..
	Trichur	17	50	95	69	51637	49979	1	1	1	..
	id	15	48	114	48	48935	48935	7	7	7	..
	c	23	55	168	60	145778	66112	..	..	..	..
	c	12	46	145	45	49756	38421	2	2	2	..

TABLE VI
Details of Laboratory Services
(Malaria III)

Serial No.	District	Number of P. H. Centres	Total No. of slides examined		Slides sent for cross check to	
			Active	Passive	R.C.O. Bangalore	C.M.L. Trivandrum
1	2	3	4	5	6	7
1	Trivandrum	12	41602	41094	2945	5834
2	Quilon	17	82012	50256	6600	13227
3	Alleppey	17	41422	59360	5040	10078
4	Kottayam	13	51138	48258	4888	9318
5	Ernakulam	17	37827	32367	3453	6942
6	Trichur	17	51177	64938	5413	10466
7	Palghat	15	48935	45760	4640	8950
8	Kozhikode	23	64103	70688	5879	10662
9	Cannanore	12	47767	23100	3540	7086

TABLE VII
(Malaria IV)
Details of malaria cases

Serial No.	District	Block P.H. Centres	No. of positives	Species of parasites				Epidemiological classification			No. of cases radically treated	No. of cases relapsing after R.T.
				V.	F.	M.	Mx.	Rel.	Imp.	Indg.		
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Trivandrum	..	12	12	..	..	..	..	12	..	12	..
2	Quilon	..	14	13	1	..	..	..	14	..	13	..
3	Alleppey	..	13	13	..	..	..	..	13	..	13	1
4	Kottayam	..	5	5	..	..	..	..	5	..	5	1
5	Ernakulam	..	1	1	..	..	..	..	1	..	1	..
6	Trichur	..	8	7	..	..	1	..	8	..	8	..
7	Palghat	..	21	19	2	..	..	..	21	..	21	..
8	Kozhikode	..	28	28	..	..	..	..	28	..	27	..
9	Cannanore	..	3	3	..	..	..	1	2	..	3	..

TABLE VIII
(Malaria V)
Remedial measures against malaria cases

Remedial measures against malaria cases													
Serial number	District	Positive cases		Parasite survey		Positive if any	Houses for focal spray			D.D.T. formula- tion used		Remarks	
		Detected	Radically treated	Contact	Mass		To be sprayed	Sprayed	Missed	75 per cent WP kg.	50 per cent WP kg.		
1	2	3	4	5	6	7	8	9	10	11	12	13	
1	Trivandrum	12	12	309	2767	1	903	879	24	290	..	..
2	Quilon	14	13	131	3444	..	1845	1822	23	480	..	..
3	Alleppey	13	13	60	4344	..	841	841	..	300	..	..
4	Kottayam	5	5	10	2573	..	615	584	31	150	..	..
5	Ernakulam	1	1	5	367	..	90	72	18	26	..	..
6	Pichur	8	8	62	1666	..	667	647	20	719	..	..
7	Palghat	21	21	147	4655	..	1440	1283	117	1090	..	..
8	Kozhikode	28	27	417	6975	..	1528	1490	38	390	..	..
9	Canimannore	3	3	Data not reported			..	..	..	..	..	..

TABLE IX
Filariasis—Antilarval operations

<i>Kerarla</i>		<i>Population</i>		<i>No. of Units—20</i>	
Sl. No.	Name of Units	Type of Unit	Approximate area of breeding places (in sq. metres)	Nature of operation oiling/pistia clearance	Quantity of larvicidal oil used (in litres)
1	2	3	4	5	6
1	Trivandurm	E	32,28,391	Oiling	1,63,440
2	Alleppey	D	26,21,271	Oiling & Pistia Clearance	48,093
3	Kozhikode	D	1,38,550	Oiling	1,04,194
4	Quilon	C	15,39,434	Oiling	36,272.32
5	Mattancherry	C	1,62,821	Oiling & Pistia Clearance	73,264
6	Ernakulam	C	75,000	Do.	72,477
7	Palghat	C	24,64,386	Oiling	41,609
8	Tellicherry	C	19,36,793	Oiling	37,715
9	Cannanore	C	18,39,540	..	29,670
10	Taliparamba	C	5,95,175	..	14,105
11	Karunagapally	A	93,558	Oiling & Pistia Clearance	4,474
12	Kayamkulam	A	N.A.	Do.	16,050
13	Haripad	A	N.A.	Do.	17,018
14	Trippunithura	A	45,000	Do.	15,051
15	Chowghat	A	27,400	Do.	12,562
16	Ponnani	A	3,61,350	Do.	14,649
17	Tirur	A	6,36,150	Oiling	12,723
18	Badagara	A	N.A.	Do.	9,500
19	Kasargode	A	10,17,633	Do.	18,685
20	Manjeswar	A	39,000	Do.	8,353

TABLE X
***Flarials*—Entomological Data**

Serial No.	Name of Unit	Species of fishes questioned	Collections										Dissections				Remarks
			Fixed stations			Random stations							No. dissected	No. positive	Infection rate per cent	Infectivity rate	
			Male	Female	Density per 10 man hour	Male	Female	Density per 10 man hour									
2	U. S. S. R.	L. G. f.	3	1	0	7	0	9	10	11	12	13	14	15			
1	U. S. S. R.	M. sp.	1225	147	0.12	0.12	116	0.02	1738	5753	362	97	13				
	U. S. S. R.	C. f.	906	1603	93.52	819	1371	43.93	3254	24	0.73						
	U. S. S. R.	M. sp.	30	115	5.21	24	93	4.33	213								
	U. S. S. R.	C. f.	1100	3200	77.44	722	2731	61.9	5721	227	3.06						
	U. S. S. R.	M. sp.	1347	5712	177.7	1319	3373	161.4	6279	128	1.2						
	U. S. S. R.	C. f.	1111	1111	0.208	1111	27	0.89	16	179	1.2						
	U. S. S. R.	M. sp.	1111	1111	1.07	1111	2971	183.04	6337	179	1.2						
	U. S. S. R.	C. f.	1111	1111	1.07	1111	7	2.67	16	179	1.2						
	U. S. S. R.	M. sp.	1111	1111	1.07	1111	2628	113.4	3443	179	1.2						
	U. S. S. R.	C. f.	1111	1111	1.07	1111	36	0.96	77	179	1.2						
	U. S. S. R.	M. sp.	1111	1111	1.07	1111	1129	40.79	2771	179	1.2						
	U. S. S. R.	C. f.	1111	1111	1.07	1111	11	11.11	1116	179	1.2						
	U. S. S. R.	M. sp.	1111	1111	1.07	1111	11	11.11	1116	179	1.2						

Serial No.	Name of Unit	Type of unit	Species of mos- quitoes	Collections							Dissections				Remarks
				Fixed stations			Random stations				No. dissected	No. positive	Infection rate per cent	Infectivity rate	
				Male	Female	Density per 10 man hour	Male	Female	Density per 10 man hour						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
9	N.F.C.P. Unit, Cannanore	C	C. f. M. sp.	164 ..	263 ..	146.1 ..	180 ..	276 ..	135.1 ..	539 ..	..	..	..	..
10	" Taliparamba	C	C. f. M. sp.	495 ..	2001 ..	52.09 ..	376 ..	1447 ..	43.58 ..	3448 ..	136 ..	3.94 ..	0.377 ..	..
11	" Karunagapally	A	C. f. M. sp.	665 542	936 761	36.6 29.8	564 510	830 685	39.9 27.3	..	..	..	..	..
12	" Kayamkulam	A	C. f. M. sp.	45 ..	152 4	8.5 0.7	23 ..	80 4	5.00 0.3	..	..	..	..	..
13	" Haripad	A	C. f. M. sp.	18 ..	10 ..	16.9 ..	8 ..	6 ..	11.9 ..	..	..	..	..	..
14	" Trippunithura	A	C. f. M. sp.	415 ..	867 ..	30.5 ..	397 ..	727 ..	27.87 ..	..	..	..	..	..
15	" Chowghat	A	C. f. M. sp.	1036 ..	3036 ..	105.36 ..	730 ..	1960 ..	62.3 ..	..	..	..	..	..
16	" Ponnani	A	C. f. M. sp.	908 ..	2253 ..	72.9 ..	934 ..	2370 ..	76.2 ..	..	..	..	..	..
17	" Tirur	A	C. f. M. sp.	347 ..	1057 ..	38.8 ..	238 ..	696 ..	25.66 ..	..	..	..	..	..

TABLE XI
Filariasis vertical survey data

State: KERALA

No. of units 20

Serial number	Name of units	Type of unit	Population protected	Filariasis survey										Remarks
				No. of children examined	Micros filaria		Filaria disease		No. with MF. & disease	Endemicity rate per cent	Average infestation per 20 c. mm. of blood			
					No. with MF.	MF. rate percent	No. with disease	Disease rate per cent						
1	2	3	4	5	6	7	8	9	10	11	12	13		
1	Trivandrum	E	300000	2478	174	6.8	9	0.4	1	7.2	13.4			
2	Alleppey	D	138834	2721	173	6.36	23	0.85	1	7.17	13.55			
3	Calicut	D	216251	2550	165	4.65	4	0.11	..	4.7	5.23			
4	Quilon	C	99524	6660	71	1.06	30	0.45	2	1.5	10.00			
5	Mattancherry	C	93727	2617	120	4.58	26	0.99	..	5.57	17.00			
6	Ernakulam	C	127000	2694	126	4.67	6	0.22	1	4.9	13.67			
7	Palghat	C	77119	1561	98	6.27	2	0.13	..	6.4	17.2			
8	Tellicherry	C	62000	1656	59	3.56	4	0.24	..	3.86	137.66			
9	Cannanore	C	55254	2464	208	8.44	..	..	..	8.44	26.47	
10	Taliparamba	C	20794	1105	123	11.13	..	..	..	11.13	24.94	

Details of blood slides (Filaria) received for cross checking — N. F. C. P.
 TABLE XII
 Units (from April 1966 to March 1967)

Serial number	Name of unit	No. of slides received			Remarks
		Positive	Negative	Total	
1	2	3	4	5	6
1	N.F.C.P. Units, Trivandrum	38	397	435	
2	" Alleppey	8	71	79	
3	" Quilon	42	379	421	
4	" Mattancherry	89	256	345	
5	" Ernakulam	84	184	268	
6	" Kozhikode	82	177	259	
7	" Cannanore	111	113	224	
8	" Palghat	20	81	101	
9	" Taliparamba	123	50	173	
10	" Tellicherry	27	137	164	
	Total	624	1845	2469	

TABLE XIII

Statement of Food samples received from the Municipalities for analysis under the Prevention of Food Adulteration Act, 1954 during 1966-67

Serial number	Name of Municipality	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
1	Trivandrum Corporation	117	25	30	1	10	..	24	1	140	1
2	Calicut	34	12	13	2	78	1	15	3	68	..
3	Alleppey Municipality	..	..	..	..	82	2	11	..	32	..
4	Ernakulam	..	13	..	..	34	1	6	..	29	1
5	Mattancherry	..	32	4	1	41	3	7	2	62	..
6	Trichur	..	22	5	2	8	..	5	..	94	..
7	Palghat	..	13	7	1	36	1	14	1	99	..
8	Quilon	..	24	2	..	85	4	10	..	124	..
9	Kottayam	..	15	12	1	119	28	32	..	30	1
10	Kayamkulam	..	..	1	..	35	1	5	..	38	..
11	Mavelikkara	..	1	..	..	26	..	21	..	9	..
12	Thiruvella	..	2	..	..	9	1	23	..	28	..
13	Changanacherry	..	4	..	1	28	2	8	..	19	..
14	Sherthallai	..	5	1	..	39	..	10	..	22	..
15	Vaikom	..	8	4	..	85	1	7	..	30	..
16	Palai	..	3	..	..	17	..	4	..	26	..
17	Perumbavoor	..	7	..	..	45	1	22	..	38	..
18	Parur	..	..	..	..	42	..	16	..	42	..
19	Irinjalakuda	..	1	1	..	4	..	..	..	14	..
20	Kunnamkulam	..	5	..	..	17	..	9	..	29	..
21	Chittur-Thattamangalam	..	9	..	..	5	..	1	..	31	..
		46	19	..	..	5	..	1	..		..

TABLE XIII—(cont.)

Serial number	Name of Municipality	Cereals, grains and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	Tri andrum Corporation	124	6	13		1		23		482	36
2	Calicut	149	14	11		13		104		480	41
3	Alleppey Municipality	43	3	11		3		117		300	12
4	Ernakulam	62	6	23		16		82		301	28
5	Mattancherry	94	10	1		4		34		300	50
6	Palghat	92	5	4		2		81		313	24
7	Quilon	44	5	3		7		38		300	41
8	Kottayam	44	5	6		6		2		300	28
9	Kayamkulam	30	2	10		2		15		121	50
10	Malapikara	23	2	2		2		32		120	4
11	Thiruvella	22	1	4		2		18		120	3
12	Changanacherry	34	2	2		1		33		121	8
13	Sherthallai	23	1	1		2		13		120	10
14	Vaikom	24	1	2		1		6		120	3
15	Palai	19	3	1		1		2		120	8
16	Perumbavoor	57	1	11		2		2		120	10
17	Parur	3	1	1		1		2		120	3
18	Irinjalakuda	6	1	1		1		2		120	3
19	Kunnankulam	20	1	1		1		11		121	5
20	Chittur-Thattamangalam	14	2	2		2		10		55	9
21	"	21	2	2		2		27		121	21

TABLE XIII—(cont.)

Serial number	Name of Municipality	Milk		Milk products		Tea		Coffee		Edible oil, and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
22	Fort Cochin Municipality	..	..	..	..	..	..	..	..	..	..
23	Tellicherry	13	4	1	1	14	..	..	..	25	..
24	Cannanore	38	3	5	..	20	..	..	..	22	..
25	Alwaye	14	16	..	..	5	..	1	..	6	..
26	Attingal	..	5	..	..	30	..	8	..	16	..
27	Badagara	..	..	1	..	27	..	1	..	40	..
28	Muvattupuzha	19	18	..	..	39	..	4	..	16	1
29	Neyyattinkara	8	8	..	..	38	..	28	5	34	..
30	Guruvayur Township	15	2	..	..	..	..	1	..	43	1
31	Kaargod Municipality	6	1	6	..	12	..	2	..	14	1
								..	1	8	..
	Total	619	276	104	10	986	46	303	14	1223	9

TABLE XIII—(cont.)

Serial number	Name of Municipality	Cereals, grains and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
22	Fort Cochin Municipality	..	..	..	..	..	..	..	..	..	..
23	Tellicherry	52	1	..	..	..	..	17	..	122	5
24	Cannanore	17	13	..	..	..	..	41	..	120	5
25	Alwaye	54	3	..	..	..	..	11	..	121	33
26	Attingal	26	3	..	..	..	..	19	..	120	11
27	Badagara	17	2	..	..	..	..	32	..	120	6
28	Muvattupuzha	27	2	..	..	..	..	24	..	120	4
29	Neyyattunkara	1	..	..	..	..	..	..	..	120	19
30	Guruvayur Township	57	3	..	..	..	..	9	..	121	13
31	Kasaragod Municipality	8	1	..	..	..	..	3	..	48	4
		5	..	..	..	..	..	..	..	43	3
	Total	1221	89	119	3	89	14	841	44	5510	505

TABLE XIV

Statement of Food samples received from panchayats for analysis under the Prevention of Food Adulteration Act, 1954 during 1966-67

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Trivandrum District											
1	Andoorakonam	..	..	..	..	..	..	..	..	5	..
2	Anad	..	..	..	..	..	..	..	..	..	..
3	Aruvikara	..	..	..	..	..	..	..	..	..	..
4	Azhoor	..	..	..	..	..	..	..	..	..	..
5	Anjengo	..	..	..	..	3	..	2	..	5	..
6	Athiyannur	..	..	..	..	..	..	1	..	3	..
7	Balarampuram	..	..	..	..	..	..	..	..	6	..
8	Chettivilakam	..	1	..	..	4	..	..	..	..	..
9	Chirayinkil	..	..	..	..	..	..	..	..	6	..
10	Cheruniyur	..	..	..	..	..	..	..	..	..	..
11	Elakamon	..	..	..	..	..	..	..	..	..	..
12	Edava	..	..	..	..	1	1	..	..	..	..
13	Kadinamkulam	..	..	..	..	..	..	..	..	5	..
14	Kazhakuttam	..	..	..	..	..	..	..	..	6	..
15	Karavaram	..	..	..	..	..	..	..	..	5	..
16	Kilimanoor	..	3	..	..	..	..	..	..	3	..
17	Kadakkavoor	..	..	..	..	1	..	..	..	3	..
18	Karakulam	..	..	..	..	..	..	1	..	4	..
19	Keezhuvalam	..	..	..	..	2	..	..	..	2	..
20	Kunnathukal	..	4	..	..	..	..	..	..	8	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Trivandrum District—(cont.)											
21	Kalikkad	..	..	..	..	..	..	..	..	..6	..
22	Mangalapuram	..	..	..	..	..	..	..	..	..3	..
23	Madavoor	..	1	..	..	1	..	..	..	..7	..
24	Mundakal	..	..	..	..	1	..	1	1	..4	..
25	Maranelloor	..	1	..	..	..	..	..	..	..4	..
26	Nagaroor	..	..	..	..	1	..	..	..	..4	..
27	Navaikulam	..	..	..	..	..	..	..	..	..3	..
28	Nedumangad	..	2	..	..	2	..	2	..	..2	..
29	Nannode	..	..	..	..	..	..	..	..	..2	..
30	Nellamad	..	3	..	..	2	1	..	..	..1	..
31	Ottasekharangalam	..	6	..	..	..	..	..	..	..2	..
32	Parassala	1	..	..	..	..	..	..	..	..1	..
33	Pothencode	..	..	..	..	..	..	..	..	..4	..
34	Pazhayakunnummel	..	..	..	..	..	..	..	..	..4	..
35	Pulimath	..	1	..	..	..	..	1	..	..4	..
36	Peringamala	..	1	..	..	2	..	..	..	..7	..
37	Pallichal	..	1	..	..	..	..	..	..	..2	..
38	Perinkadavila	..	4	..	..	..	..	..	..	..4	..
39	Sreekartam	..	..	1	1	..	..	..	..	..6	..
40	Ullur	..	..	2	..	..	..	..	..	..2	..
41	Vattiyurkavu	..	..	..	..	..	..	..	..	..6	..
42	Vembayam	..	..	..	..	..	..	..	..	..1	..
43	Vamanapuram	..	..	..	..	2	..	..	..	..4	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grams and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Trivandrum District—(cont.)											
44	Vallom	3	..	..	..	..	..	1	..	12	..
45	Varkala	2	..	..	..	..	..	3	..	12	9
46	Vellarada	1	..	..	..	..	..	..	..	12	..
	Total	129	15	5	..	3	..	59	5	437	34
Quilon District—(cont.)											
47	Anchal	..	..	..	..	..	..	1	..	12	1
48	Adoor	1	..	..	..	..	..	1	..	2	1
49	Alappad	3	1	..	..	..	..	..	..	12	1
50	Arurapalam	1	1	..	..	..	..	1	..	3	1
51	Alayamon	1	1	..	..	..	..	..	..	10	1
52	Adichanalloor	1	1	..	..	..	..	..	..	3	1
53	Chathanur	4	1	..	..	..	..	..	..	11	1
54	Chadayamangalam	..	..	..	..	..	..	2	..	12	..
55	Chavara	1	..	..	..	..	..	..	..	2	..
	Chennerkara	..	..	..	..	..	..	4	..	11	1
	Clarpana	1	..	..	..	..	..	..	..	5	2
	Cherthole	3	2	..	..	..	..	..	..	2	..
	Chethakkal	..	..	..	..	..	..	..	..	..	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Quilon District—(cont.)											
60	Devikulangara	..	..	..	..	7	1	..	..	1	..
61	Elanthur	..	..	..	..	..	..	..	1	..	..
62	Enadimangalam	..	..	..	..	..	..	..	..	..	..
63	Erathu	..	1	..	..	1	..	..	..	2	..
64	Ezhamkulam	..	..	..	..	2	..	..	..	3	..
65	Eravipuram	..	..	..	..	3	1	..	..	1	..
66	East Kallada	..	..	..	..	4	..	..	..	3	..
67	Edmulakkal	..	..	..	..	2	..	..	..	5	..
68	Kalluvathukal	..	..	..	..	..	..	..	..	..	..
69	Kadakkal	..	2	..	..	2	..	3	1	..	..
70	Kottarakara	..	..	..	..	..	..	1	..	..	..
71	Konni	..	..	..	..	..	..	..	..	1	..
72	Kalanjoor	..	..	..	..	..	..	..	..	..	..
73	Kodumon	..	..	..	..	..	..	..	1	..	..
74	Kadampnad	..	..	..	..	4	..	1	1	..	..
75	Kulakkada	..	..	..	..	2	..	3	..	6	..
76	Kunnathur	..	..	..	..	4	..	..	..	7	..
77	Karunagappally	..	..	..	..	8	..	..	..	3	..
78	Kozhencherry	..	1	1	..	1	..	1	..	1	..
79	Kulasekharapuram	..	..	..	..	2	..	..	..	3	..
80	Krishnapuram	..	..	..	..	4	..	2	1	..	..
81	Kottamkara	..	1	..	..	4	..	1	..	4	..
82	Karavallloor	..	..	..	..	3	..	..	..	3	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grains and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Qullon District—(cont.)											
60	Devikulangara	..	..	..	..	..	..	..	..	12	1
61	Elanthur	..	..	..	..	..	..	..	..	2	2
62	Enadimangalam	..	..	..	..	..	..	..	..	..	..
63	Erathu	..	..	..	..	..	..	..	..	..	..
64	Ezhamkulam	..	..	..	..	..	..	..	..	..	..
65	Eravipuram	..	..	..	..	..	..	..	..	..	..
66	East Kallada	..	..	..	..	..	..	..	..	..	..
67	Edamulakkal	..	..	..	..	..	..	..	..	..	..
68	Kalluvathukal	..	..	..	..	..	..	..	..	..	..
69	Kadakkal	..	..	..	..	..	..	..	..	..	..
70	Kottarakara	..	..	..	..	..	..	..	..	..	..
71	Konni	..	..	..	..	..	..	..	..	..	..
72	Kalanjoor	..	..	..	..	..	..	..	..	..	..
73	Kodumon	..	..	..	..	..	..	..	..	..	..
74	Kadampnad	..	..	..	..	..	..	..	..	..	..
75	Kolakkada	..	..	..	..	..	..	..	..	..	..
76	Kunnathur	..	..	..	..	..	..	..	..	..	..
77	Karunagappally	..	..	..	..	..	..	..	..	..	..
78	Kozhencherry	..	..	..	..	..	..	..	..	..	..
79	Kulasekharapuram	..	..	..	..	..	..	..	..	..	..
	Krishnapuram	..	..	..	..	..	..	..	..	..	..
	Kottamkara	..	..	..	..	..	..	..	..	..	..
	Karavalloor	..	..	..	..	..	..	..	..	..	..

Qullon District	
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
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41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
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58	58
59	59
60	60
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62	62
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67	67
68	68
69	69
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74	74
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79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100
101	101
102	102
103	103
104	104
105	105

TABLE XIV—(cont.)

Serial Number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Quilon District—(cont.)											
129	Velinalloor	..	..	..	..	3	..	..	..	3	..
130	Vadakkevila	..	..	..	..	1	..	1	..	3	..
131	Vettikkavala	..	..	..	..	..	..	..	..	..	..
132	West Kallada	..	..	..	..	4	..	1	1	5	..
133	Yeroor	..	..	..	..	..	..	..	..	..	..
	Total	18	10	2	..	200	11	57	15	208	1
Alleppey District—(cont.)											
134	Anicad	..	..	..	..	..	..	..	..	..	..
135	Avitoor	..	..	..	..	1	..	1	..	4	..
136	Ala	..	..	..	..	4	..	4	..	5	..
137	Arattupuzha	..	..	..	..	2	..	1	..	2	1
138	Aranmula	..	..	..	..	1	..	2	..	5	..
139	Ambalapuzha	..	..	..	..	3	..	1	..	1	..
140	Ariyad	..	2	..	..	5	..	..	..	5	..
141	Aroor	..	..	..	..	2	1	..	..	4	..
142	Budhanoor	..	..	..	..	2	..	3	..	1	..
143	Bharanikavu	..	2	..	..	1	..	1	..	4	..
144	Chengannur	..	..	..	..	7	..	6	..	3	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
	Alleppey District—(cont.)										
145	Cheriyana	..	..	..	..	4	..	2	..	2	..
146	Chunakkara	..	..	..	..	4	..	..	..	3	..
147	Chennithala-Tripertumthura	..	..	..	..	4	..	3	..	3	..
148	Chettikulangara	..	..	..	..	5	..	..	..	5	..
149	Cheppad	..	..	..	..	3	..	2	..	1	..
150	Cheruthana	..	..	..	..	..	..	..	..	..	..
151	Chempakulam	..	..	..	..	..	1	..	1	5	..
152	Chennam Pallipuram	..	..	..	..	8	..	1	1	3	..
153	Chingoli	..	..	..	..	2	..	1	..	5	..
154	Ezhupunna	..	..	..	..	2	..	1	..	3	..
155	Ezhumattoor	..	..	..	..	1	..	1	..	5	..
156	Eraviperoor	..	..	..	..	3	..	4	..	4	..
157	Edathua	..	..	..	..	3	..	..	..	2	..
158	Haripad	..	..	..	..	3	..	1	..	6	..
159	Kalloopara	..	..	..	..	1	..	..	..	3	..
160	Kaviyoor	..	..	..	..	1	..	1	..	3	..
161	Kottanad	1	..	..	..	..	..	2	..	1	..
162	Kunnamthanam	..	..	..	..	..	..	1	..	3	..
163	Koipram	..	..	..	..	2	..	1	..	3	..
164	Kadapra	..	..	..	..	1	..	2	..	4	..
165	Kuttapuzha	..	..	..	..	1	..	3	..	4	..
166	Kuttoor	..	..	..	..	1	..	1	..	..	..
167	Kulanada	2	..	..	..	1	..	..	..	3	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grains and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
	Alleppey (District—(cont.))	13	14	15	16	17	18	19	20	21	22
145	Cheriyana	1	..	..	..	..	..	3	1	12	1
146	Chunakkara	1	..	..	..	..	..	1	..	9	..
147	Chennithala-Triperumthura	2	..	..	..	..	..	..	..	12	..
148	Chetrikulangara	1	..	..	..	..	..	1	..	12	..
149	Cheppad	3	..	..	..	..	..	1	..	10	..
150	Cheruthana	..	..	..	..	..	..	..	..	..	..
151	Champakulam	..	..	..	..	..	..	2	..	8	2
152	Chennam Palipuram	1	..	..	..	..	..	1	..	12	..
153	Chingoli	2	..	..	..	..	..	..	..	7	..
154	Ezhupunn	..	1	..	..	..	..	..	..	12	1
155	Ezhumattoor	4	..	..	..	..	..	4	..	12	..
156	Eraviperoor	3	..	..	..	..	..	2	..	12	..
157	Edathua	2	..	..	..	..	..	..	..	7	..
158	Haripad	2	..	..	..	..	..	..	..	12	..
59	Kaliopara	3	..	..	..	..	..	3	..	10	..
	Kaviyoor	2	..	..	..	..	..	4	..	12	..
	Kottanad	3	..	..	..	..	..	5	..	11	..
	Kannamthanam	3	..	..	..	..	..	5	..	12	..
	..ouram	4	1	..	..	..	..	1	..	12	1
	adapra	2	..	..	..	..	..	..	..	10	..
	Kuttapuzha	4	..	..	..	..	..	1	..	10	..
	Kuttoor	4	..	..	..	..	..	2	..	7	..
	Kulanad	3	..	..	..	..	..	4	..	13	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Alleppey District—(cont.)											
168	Kandalloor	..	..	..	..	6	..	1	..	3	..
169	Karthigappally	..	..	..	..	5	..	..	..	5	..
170	Karuvatta	..	..	..	..	5	..	..	..	1	..
171	Kumarapuram	..	..	..	..	4	..	..	..	3	..
172	Kainakary	..	..	..	..	3	..	1	..	4	..
173	Kavalam	..	..	..	..	3	..	..	..	4	..
174	Kadakkarappally	..	..	..	..	..	..	..	..	..	..
175	Kodenthuruthu	..	..	1	..	3	..	2	..	2	..
176	Kuthiathode	..	..	..	..	3	..	..	..	3	..
177	Kanjikuzhi	..	..	..	..	4	..	..	..	..	1
178	Mattathilbhagam	..	..	..	..	8	1	..	..	..	..
179	Mannancherry	..	..	..	..	9	..	..	..	2	..
180	Muhamma	..	..	..	..	7	..	..	..	4	..
181	Maraikulam North	..	..	..	..	5	..	..	..	2	..
182	Mararikulam South	1	..	..	..	8	..	..	..	3	..
183	Muttar	..	..	..	..	4	..	..	..	1	..
184	Muthukulam	..	..	..	..	5	..	1	..	..	..
185	Mavelikara-Thelkkekara	..	..	..	..	1	..	..	..	3	..
186	Mannar	..	..	..	..	5	..	2	..	4	..
187	Mattappally	..	..	..	..	1	..	..	..	3	..
188	Mezhuvelli	..	..	..	..	3	..	2	..	7	..
189	Mulakuzha	..	..	..	..	1	..	..	..	2	..
190	Nedumpuram	..	..	..	..	2	..	..	..	2	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Alleppey District—(cont.)											
191	Niranam	..	..	..	..	1	..	..3	..1	1	..
192	Kottangal	..	..	..	..	..5	..	..1	..	1	..
193	Noornad	..	..	..	..	1	..	..	..	2	..
194	Nedumudy	..	..	..	..	4	..	..	..	2	..
195	Neelamperoor	..	..	..	..	1	..	..3	..	4	..
196	Puramattam	..	..	..	..	1	..	..1	..	4	..
197	Peringara	..	..	..	..	1	..	..1	..	3	..
198	Pathiyur	..	..	..	..	3	..	..1	..	2	..
199	Palamel	..	..	..	..	1	..	..5	..1	3	..
200	Pandalam Thekkkara	..	..	..	..	4	..	..3	..	4	..
201	Pandalam Thonnallur	..	..	1	1	1	..	..4	..	3	..
202	Puliyur	..	..	..	..	3	..	..	..	2	..
203	Pallipad	..	..	..	..	5	1	..	..	5	..
204	Punnappa	..	..	..	..	6	..	..	..	2	..
205	Purakad	..	..	..	..	3	..	..1	..	4	..
206	Pulinkunnu	..	..	..	..	5	..	..	..	3	1
207	Pattanakad	..	..	..	..	6	..	..	..	7	..
208	Panavally	1	1	..	..	2	..	..5	..	4	..
209	Pandanad	..	..	..	..	3	..	..2	..	1	..
210	Ramankari	..	..	..	..	3	..	..	..	4	..
211	Sherthalai South	..	..	..	..	3	..	..	..	3	..
212	Thannermukkom	..	..	..	..	6	..	..	..	2	..
213	Thuravoor	..	..	..	..	6	..	..	..	4	..

TABLE XIV--(cont.)

[illegible]

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grams and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Alleppey District—(cont.)											
214	Thalavady Panchayat	4	1	..	..	..	..	8	..	8	1
215	Thakachy	4	1	..	..	..	..	1	..	9	1
216	Thrikunnapuzha	1	1	..	..	..	..	..	..	5	1
217	Thazhakkara	3	1	..	..	..	..	2	..	13	1
218	Thumpamon	4	1	..	..	..	..	3	..	10	1
219	Thiruvandoor	1	..	..	..	..	..	1	..	12	..
220	Thottapuzhasseri	3	..	3	..	..	..	..	..	12	..
221	Thycattusseri	..	..	..	..	..	..	..	..	8	..
222	Thamarakulam	..	..	..	..	..	..	..	..	12	..
223	Vemmony	3	..	..	..	..	..	2	..	10	1
224	Vallikunnam	..	..	..	..	..	..	..	..	10	..
225	Veejapuram	1	1	..	..	1	..	..	..	12	1
226	Veliyanad	1	..	2	..	..	..	..	..	12	..
227	Vayalar	2	..	..	..	..	..	..	..	..	..
228	Kozhimukku	..	..	..	..	..	..	..	..	..	..
	Total	206	20	22	..	6	..	88	1	996	39
Kottayam District											
	Athirampuzha	1	1	..	..	..	..	1	..	10	1
	Aynnam	6	..	..	..	..	..	1	..	..	..

TABLE XIV—(cont.)

Serial Number	Name of Panchayat	Milk		Milk Products		Tea		Coffee		Edible oils and fats and vanaspathy		
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	A.	A.
1	2	3	4	5	6	7	8	9	10	11	12	
Kottayam District—(cont.)												
231	Ayarkunnam	..	..	..	..	2	..	2	..	4	..	..
232	Arudai	..	..	..	..	4	1	2	..	2	..	..
233	Ayyappancoil	..	..	..	..	1	..	2	..	6	..	..
234	Barananganam	..	..	..	..	..	..	..	..	..	..	..
235	Chempu	..	..	..	..	5	..	1	..	6	..	..
236	Chirakadavu	..	1	..	..	1	..	1	..	4	..	..
237	Elappara	..	2	..	..	1	..	2	..	1	..	..
238	Elakkad	..	..	..	..	3	..	..	..	4	..	..
239	Ettumanoor	..	1	2	..	3	..	1	..	2	..	..
240	Erumeli	..	..	..	..	3	..	..	..	4	..	..
241	Erattupettah	..	..	..	..	..	..	..	..	..	..	..
242	Kidangoor	..	1	..	..	..	..	..	..	..	..	..
243	Kootickal	7	2	..	..	1	..	1	..	2	..	..
244	Kanjirappally	..	..	..	..	3	..	1	..	4	..	..
245	Kainakary	..	..	..	..	3	..	1	..	1	..	..
246	Kumarakom	..	..	..	..	2	..	2	..	3	..	..
247	Kuravilangad	..	..	..	..	2	..	1	..	8	..	..
248	Kumily	2	2	..	..	2	..	..	..	3	..	..
249	Kaduthuruthy	..	..	..	..	2	..	..	..	5	1	..
250	Kattapana	..	..	..	..	2	..	..	..	2	..	..
251	Kumaranallur	..	..	1	..	2	..	3	..	4	..	..
252	Kurichy	..	..	..	..	..	..	1	..	2	..	..
253	Karukachal	..	..	..	..	1	..	..	..	4	..	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals grams and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Kottayam District—(cont.)											
231	inam	1	..	..	..	..	..	..	..	9	..
232	..	3	..	..	..	..	..	..	..	12	..
233	ancoil	1	1	..	..	..	..	1	..	12	..
234	anganam	1	1	..	..	..	..	..	..	1	..
235	12	..
236	12	..
237	12	..
238	13	..
239	10	..
240
241
242
243
244
245
246
247
248
249
250
251
252
253

Name of Panchayat

Kottayam District

277 Pallathole
 278 Ramapuram
 279 Rajahm
 280 Thiruvargu
 281 Thattakara
 282 Thattakara
 283 T. V. Puram
 284 Thendralola
 285 Thavoor
 286 Thavoor
 287 Thavoor
 288 Vattavada
 289 Vellathurai
 290 Vellathurai
 291 Vellathurai
 292 Vellathurai
 293 Vellathurai
 294 Vellathurai
 295 Vellathurai
 296 Vellathurai
 297 Vellathurai

Total

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Ernakulam District											
298	Ankamaly	8	4	..	..	1	..	..	..	6	..
299	Alengad	..	..	..	..	3	..	..	..	1	..
300	Amballur	4	4	..	..	1	..	..	..	3	..
301	Cheranallur	..	1	..	..	2	..	..	..	3	..
302	Chengamanad	6	..	..	..	3	..	..	..	5	..
303	Chennamangalam	..	..	..	..	2	..	..	..	1	..
304	Chittattukara	..	..	..	..	4	..	..	..	1	..
305	Choornikara	6	5	..	..	1	..	..	..	1	..
306	Edakkattuvayal	1	1	..	..	5	..	..	..	1	..
307	Ezhikara	..	..	..	..	3	1	..	..	3	..
308	Elamkunnappuzha	2	2	..	..	2	..	..	..	1	..
309	Edappally	1	1	..	..	4	..	..	..	4	..
310	Edavanakad	..	..	1	..	2	..	..	3	2	..
311	Kothamangalam	5	2	..	..	2	..	..	..	9	1
312	Kavalangad	..	..	..	..	2	..	..	..	4	..
313	Keezhmad	..	2	..	..	1	..	..	..	2	..
314	Kalloorkad	6	..	..	..	1	..	..	..	6	..
315	Karimkunnam	3	..	..	..	2	..	..	..	2	..
316	Kumaramangalam	..	..	..	..	3	..	..	1	4	..
317	Kalady	..	..	..	..	2	..	..	..	2	..
318	Karukutty	..	..	..	..	3	..	..	..	4	..
319	Kunnukara	..	..	..	..	2	..	..	..	2	..
320	Kumbalam	4	2	..	..	3	..	..	4	..	1

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grains and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Ernakulam District—(cont.)											
298	Ankamaly	3	1	..	..	..	..	..	..	12	4
299	Alengad	3	1	..	..	1	..	..	..	12	1
300	Amballur	1	1	..	..	..	..	..	..	8	5
301	Cheranasur	6	1	..	..	..	..	..	..	11	1
302	Chengamanad	..	..	..	..	..	..	..	..	12	1
303	Chennamangalam	..	..	..	..	..	..	..	..	12	1
304	Chittattukara	2	1	..	..	..	..	3	..	12	1
305	Choomikara	6	..	..	..	..	..	1	..	10	1
306	Edakkattuvayal	1	..	..	..	..	..	..	..	12	1
307	Erhikkara	3	..	..	..	..	..	..	..	12	1
308	Flamkunnappuzha	4	..	1	..	1	1	..	..	10	1
309	Idappally	3	..	..	..	..	..	..	..	12	1
310	Idavanakad	5	1	..	..	..	..	..	..	10	1
311	Kothamangalam	3	..	..	..	..	..	..	..	29	6
	Kavalangad	1	..	..	..	..	..	5	..	8	2
	Keezhamad	..	..	..	..	..	..	1	..	10	1
	Kallioorkad	..	..	..	..	..	..	..	..	9	1
	arinkunnam	..	..	..	..	..	..	1	..	10	1
	umayamangalam	3	1	1	..	..	..	2	..	12	2
	Kelady	1	..	1	..	..	..	1	..	13	..
	Arakkutty	..	..	..	..	..	..	..	..	8	..
	Sunnukara	..	..	..	..	..	..	..	..	..	..
	Vimbalam	1	..	..	..	..	..	1	..	..	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Ernakulam District—(cont.)											
321	Kuzhipally	..	..	1	..	1	..	1	..	2	..
322	Kumbalanji	..	..	..	..	..	..	1	..	1	..
323	Karumalloor	..	1	..	..	1	..	..	..	3	..
324	Kottuvally	..	..	..	..	3	..	..	..	1	..
325	Kadungalloor	..	..	..	..	1	..	1	..	6	..
326	Keerampara	..	..	..	..	1	..	..	..	4	..
327	Kalamassery	..	..	..	..	2	..	..	..	5	..
328	Koovapady	..	..	..	..	1	..	..	..	1	..
329	Mookannur	..	1	..	..	4	..	..	..	5	..
330	Manjallur	..	..	..	..	1	..	..	..	3	..
331	Manakad	..	..	..	..	3	..	1	..	5	..
332	Malayattur-Nileswarem	..	..	..	..	2	..	..	..	3	..
333	Maradu	..	1	..	..	3	..	1	..	5	..
334	Mulavukad	..	..	..	..	3	..	1	..	4	..
335	Maneed	..	..	..	..	1	..	..	..	1	..
336	Mulanthuruthy	..	4	..	..	4	2	..	..	5	..
337	Narakkal	..	1	..	..	3	..	1	..	2	..
338	Nayarambalam	..	1	..	..	..	..	1	..	2	..
339	Nedumpassery	..	2	..	..	2	..	2	1	1	..
340	Nellikuzhy	..	..	..	..	1	..	2	..	2	..
341	Purapuzha	..	5	..	..	2	..	1	..	3	..
342	Parakadavu	..	3	..	..	3	1	..	..	1	..
343	Puthenvelikara	..	2	..	..	2	1	..	..	3	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grains and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Ernakulam District—(cont.)											
321	Kuzhipally	1	..	..	..	..	..	..	..	6	..
322	Kumbalanji	..	..	..	..	..	..	..	..	3	..
323	Karumalloor	1	..	..	..	..	..	..	..	12	..
324	Kottuvally	6	..	..	..	..	..	2	..	12	..
325	Kadungalloor	4	..	..	..	..	..	..	..	12	..
326	Keerampara	1	..	..	..	..	..	1	..	6	..
327	Kalamassery	..	..	3	..	..	..	..	..	12	..
328	Koovapady	2	..	1	..	..	..	..	..	5	..
329	Mookannur	2	..	..	..	..	..	1	..	12	..
330	Manjattur	2	..	..	..	..	..	..	..	10	..
331	Manakad	..	..	1	..	..	..	1	..	10	..
332	Malayattur-Nileswaram	..	..	..	..	..	..	..	..	12	..
333	Maradu	4	..	..	..	..	..	3	..	13	..
334	Mulavukad	1	..	..	..	..	..	..	..	2	..
335	Manerod	..	..	..	..	..	..	..	..	9	..
336	Mulanthuruthy	..	..	..	..	..	..	..	..	12	..
	Narakkal	4	1	..	..	..	..	1	..	9	..
	Nayarambalam	2	..	..	..	..	..	1	..	8	..
	Edumpassery	..	..	..	..	..	..	..	..	12	..
	ellikuzhy	3	..	..	..	..	..	..	..	10	..
	rapuzha	1	..	..	..	..	..	1	..	12	..
	arakadavu	..	..	..	..	..	..	..	..	12	..
	Puthenvelikara	..	..	3	..	..	..	2	..	13	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Ernakulam District—(cont.)											
344	Pallipuram	1	1	1	..	2	..	..	..	..	..
345	Palluruthy	5	3	..	..	2	..	..	..	1	..
346	Piravam	..	..	..	..	2	..	..	..	3	..
347	Pampakuda	..	..	..	..	..	..	2	..	2	..
348	Ramamangalam	1	1	..	..	2	..	..	..	1	..
349	Rayamangalam	..	..	..	..	2	..	..	..	2	..
350	Sreemulanagaram	..	..	..	..	3	..	1	..	2	..
351	Thodupuzha	7	5	..	..	1	..	..	..	4	..
352	Thrikkakara	33	15	1	..	4	..	..	..	2	..
353	Tripunithura	11	6	..	..	5	..	3	..	4	..
354	Thiruvankulam	..	..	..	..	1	..	..	..	2	..
355	Thirumarady	3	1	..	..	1	..	..	..	5	..
356	Udayamperoor	..	..	..	..	1	..	..	..	..	..
357	Udayanapuram	..	..	..	..	1	..	1	..	..	..
358	Vennala	..	..	..	..	1	..	..	..	4	..
359	Vadakkekkara	..	..	..	..	2	..	..	..	1	..
360	Varapuzha	..	..	..	..	1	..	2	..	2	..
361	Vyttila	8	2	..	..	2	1	1	..	4	..
362	Vazhakulam	5	4	..	..	2	..	1	1	1	..
363	Vengoor	1	1	..	..	1	..	1	..	1	..
364	Willingdon Island	1	1	..	..	2	..	..	..	1	..
Total		164	84	4	..	129	6	46	8	177	3

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grains and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Ernakulam District—(cont.)											
344	Pallipuram	3	..	..	..	..	..	..	..	7	1
345	Palluruthy	..	..	..	..	..	..	..	..	6	3
346	Piravam	3	1	1	..	..	..	..	..	10	1
347	Pampakuda	2	..	..	..	..	..	..	..	7	2
348	Ramangalam	3	..	..	..	..	..	..	..	7	1
349	Rayamangalam	..	..	..	..	..	..	..	..	5	..
350	Sreemulanagar	..	..	..	..	..	..	..	..	12	6
351	Thodupuzha	4	..	..	..	..	..	..	..	12	15
352	Thrikakara	2	..	..	..	..	..	..	..	44	6
353	Tripanithura	2	..	..	..	..	..	..	..	12	..
354	Tiruvankulam	..	..	..	..	..	..	..	..	11	1
355	Thirumarady	3	..	..	..	..	..	3	..	6	..
356	Udayamperoor	..	..	..	..	..	..	..	..	3	..
357	Udayanapuram	..	..	..	..	..	..	..	..	12	..
358	Vennala	4	..	..	..	..	..	..	..	12	..
359	Vadakkakara	7	..	..	..	..	..	..	..	12	1
360	Varapuzha	2	..	..	..	..	..	3	..	16	3
361	Vyttila	2	..	..	..	..	..	2	..	10	4
362	Vazhakulam	1	..	..	..	..	..	..	..	5	1
363	Vengoor	1	..	..	..	..	..	..	..	5	1
364	Willingdon Island	..	..	..	..	..	..	..	..	..	..
	Total	129	7	13	..	4	1	40	..	706	109

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Trichur District											
365	Alur	..	..	..	..	2	..	3	1	5	..
366	Annamanada	..	..	..	..	1	..	1	..	5	..
367	Alagappanagar	..	..	..	..	..	..	1	..	2	..
368	Ayanthole	..	1	..	..	..	..	..	..	3	..
369	Anthicad	..	..	..	..	1	..	..	..	4	..
370	Adat	..	..	..	..	1	..	..	..	6	..
371	Arimpur	..	..	..	..	..	..	..	..	7	..
372	Avannur	..	..	..	..	..	..	..	..	6	..
373	Arthat	..	..	..	..	..	..	..	..	3	..
374	Chowghat	..	1	..	..	1	..	..	..	..	..
375	Chelakara	..	..	..	..	..	..	..	..	..	..
376	Cheruthuruthy	..	..	..	..	..	..	..	..	..	..
377	Chazhoor	..	..	..	..	..	..	..	..	..	..
378	Cherpu	..	..	..	..	..	..	..	..	..	1
379	Chalakudy	..	2	..	..	1	..	..	..	7	..
380	Cranganore	..	..	..	..	4	..	..	..	3	..
381	Chowannur	..	..	..	..	..	..	..	1	4	..
382	Choondal	..	..	..	..	..	..	1	1	3	..
383	Desamangalam	..	..	..	..	2	..	..	1	4	..
384	Edavilangu	..	..	..	..	1	..	..	..	6	1
385	Eriyad	..	..	..	..	3	..	..	..	8	..
386	Edathuruthy	..	..	..	..	2	..	..	..	6	..
387	Engandiyur	..	..	..	..	..	..	1	..	4	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Trichur District—(cont.)											
388	Elavally	3	1	..	..	2	..	..	..	7	..
389	Erumapetty	..	..	..	..	..	..	..	..	2	..
390	Kodakara	..	..	..	..	1	..	2	..	4	..
391	Kaiparampu	..	..	..	..	1	..	..	..	3	..
392	Kaipamangalam	..	..	..	..	3	..	..	..	..	..
393	Kondazhi	..	..	..	..	..	..	..	..	3	..
394	Kadavallloor	4	2	..	..	1	..	..	..	2	..
395	Kuzhur	..	..	..	..	5	..	1	..	4	..
396	Kolazhy	..	..	..	..	..	..	..	..	2	..
397	Koorkancherry	..	..	..	..	1	..	..	..	9	..
398	Kattoor	1	1	..	..	3	..	2	1	4	..
399	Kadangode	..	1	..	..	1	..	..	..	2	..
400	Kattakampad	3	1	..	..	1	..	2	..	5	..
401	Koratty	3	2	..	..	1	..	..	..	4	..
402	Kandanassery	6	5	..	..	..	..	..	..	2	..
403	Kodassery	..	..	..	..	4	..	..	..	7	..
404	Kalloor-Vadakumury	..	..	..	..	4	..	..	..	3	..
405	Methala	..	..	..	..	5	..	..	..	..	..
406	Mala	1	1	..	..	1	..	1	..	6	..
407	Mattathur	1	1	..	..	1	..	..	..	5	..
408	Mullassery	..	..	..	..	5	..	..	..	3	..
409	Manalur	..	..	..	..	1	..	1	..	5	..
410	Melur	3	2	..	..	3	..	..	..	2	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grains and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
	Trichur District—(cont.)										
388	Elavally	3	..	..	..	..	..	5	1	13	2
389	Erumpatty	3	..	..	..	..	..	2	..	12	1
390	Kodakara	2	..	..	..	..	..	5	..	12	..
391	Kaiparampu	5	..	..	..	..	..	..	..	10	..
392	Kaiparamangalam	4	1	..	..	..	..	..	..	10	..
393	Kondazhi	7	..	..	..	..	..	2	..	10	..
394	Kadavalloor	3	..	..	..	..	..	..	..	12	2
395	Kushur	2	..	..	..	..	..	..	..	12	..
396	Kolazhy	3	..	..	..	..	..	..	..	12	..
397	Koorkancherry	3	1	..	..	..	..	..	..	8	1
398	Kattoor	2	1	..	..	..	..	1	..	10	3
399	Kadangode	3	1	..	..	..	..	..	..	10	..
400	Kattakampad	2	1	..	..	..	..	1	..	12	2
401	Koiatty	3	..	1	..	..	..	2	..	12	5
402	Kandanassery	1	..	..	..	..	..	1	..	12	..
403	Kodassery	4	..	..	..	..	..	..	..	12	..
404	alloor-Vadakkumary	4	1	..	..	..	..	1	..	12	1
405	ethala	6	..	..	..	..	..	..	..	12	1
406	ala	4	..	..	..	..	..	4	..	12	1
407	attathur	1	..	..	..	..	..	..	..	12	..
408	ilassery	4	..	..	..	..	..	..	..	12	..
409	appalur	3	..	..	..	..	..	1	..	10	..
410	Alur	3	..	..	..	..	..	..	..	12	2

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grains and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Trichur District—(cont.)											
411	Mundathicode	5	..	..	..	..	..	1	..	10	..
412	Muriyad	..	..	..	..	..	..	2	..	10	..
413	Nattika	4	..	..	..	..	..	5	..	10	..
414	Nadathara	6	..	..	..	..	..	..	..	12	..
415	Ollukara	1	..	..	..	..	..	..	..	12	..
416	Ollur	1	..	..	..	..	..	..	..	9	..
417	Orumanayoor	3	..	2	..	..	..	1	..	12	..
418	Pavaratty	3	..	..	..	..	..	2	..	12	..
419	Perinjaniam	2	..	..	..	..	..	1	..	10	..
420	Pappinivattom	4	..	..	..	..	..	1	..	11	..
421	Pazhayannur	4	..	..	..	..	..	..	..	12	..
	Poyya	3	..	..	..	..	..	..	..	12	..
	'adiyur	2	..	..	..	..	..	..	..	12	..
	'uthenchira	..	..	1	..	..	..	1	..	12	..
	'ariyaram	..	..	..	..	..	..	1	..	12	..
	Puthucad	3	..	..	..	..	..	3	..	12	..
	arappukara	6	..	..	..	..	..	3	..	10	..
	urthussery	2	..	..	..	..	..	3	..	10	..
	mancherry	3	..	1	..	..	..	..	..	12	..
	athur	3	..	1	..	..	..	..	..	12	..
	Paralam	1	..	..	..	..	..	..	..	12	..
422	Porkulam	1	..	..	..	..	..	..	..	10	..
431	Panjai	2	..	..	..	..	..	3	..	12	..
		5	..	..	..	..	..	..	..	11	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2.	3	4	5	6	7	8	9	10	11	12
Trichur District—(cont.)											
434	Pookode	..	..	..	..	4	..	2	..	2	1
435	Sreenarayanapuram	..	..	..	..	3	..	..	..	4	..
436	Trikkur	..	..	..	..	1	..	1	..	3	..
437	Tolur	1	1	..	..	..	..	..	..	5	..
438	Tannium	..	..	..	..	2	..	1	..	3	..
439	Thekkumkara	..	..	..	..	..	..	..	..	6	1
440	Thiruvilvamala	..	..	..	..	1	..	1	..	7	..
441	Talikulam	..	..	..	..	1	..	..	..	5	..
442	Thaikkad	..	..	..	..	2	..	..	..	1	..
443	Vellangalloor	4	2	..	..	4	..	..	..	5	..
444	Velukara	6	3	..	..	..	..	1	..	1	..
445	Varandarapally	..	..	..	..	..	..	..	..	2	..
446	Vilvattam	..	..	..	..	..	..	..	..	1	..
447	Vallachira	..	..	..	..	..	..	..	..	8	..
448	Varavoor	..	..	..	..	..	..	..	..	5	..
449	Velur	..	..	..	..	1	..	..	..	5	..
450	Vadanappally	..	..	..	..	..	..	..	..	4	..
451	Valapad	..	..	..	..	3	..	..	..	2	..
452	Venkitangu	..	..	..	..	4	..	..	..	3	..
453	Wadakancherry	..	..	..	..	..	..	..	..	3	..
Total		64	39	1	..	107	..	36	9	368	4

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grains and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Trichur District—(cont.)											
434	Poolode	..	..	..	..	..	..	1.	..	12	1
435	Sreenarayanaapuram	2	..	1	..	..	..	..	..	10	..
436	Trikkur	3	..	..	..	..	..	..	1	12	1
437	Tolur	5	..	..	..	..	..	..	..	8	..
438	Tannium	1	..	..	..	..	..	..	..	9	..
439	Thekkumkara	2	..	..	..	..	..	..	..	12	..
440	Thiruvilvamala	5	..	..	..	..	..	..	..	11	..
441	Thakkulam	2	..	..	..	..	..	..	..	10	..
442	Thirukad	2	..	..	..	..	..	..	..	12	..
443	Vellangalloor	3	..	..	..	..	..	..	..	12	..
444	Velukara	1	..	..	..	..	..	..	..	12	..
445	Varandarpally	7	..	..	..	..	..	..	1	12	..
446	Vilvattom	4	..	..	..	..	..	..	..	12	..
447	Vallachira	5	..	..	..	..	..	..	..	10	..
	Varavoor	3	..	..	..	..	..	..	..	11	..
	Velur	3	..	..	..	..	..	..	..	10	..
	Vadanappally	3	..	..	..	..	..	..	..	10	..
	Valapad	7	..	..	..	..	..	..	..	12	..
	Venkitangu	2	..	..	..	..	..	..	..	11	..
	Wadakkancherry	5	..	..	..	..	..	..	..	10	..
	Total	287	12	19	..	..	..	102	5	981	69

[illegible]

Serial number	Name of Panchayat	Males			Males and females			Total	Per cent	Total	Per cent
		T.	Ad.	T.	Ad.	T.	Ad.				
1	2	3	4	5	6	7	8	9	10	11	12
Palghat District											
454	Akathethara	3	2	5	6	7	8	9	10	11	12
455	Alanallloor	1	1	2	2	2	2	2	2	2	2
456	Alapadhy	1	1	2	2	2	2	2	2	2	2
457	Aliparamba	1	1	2	2	2	2	2	2	2	2
458	Angadipuram	3	2	5	6	7	8	9	10	11	12
459	Ananganady	1	1	2	2	2	2	2	2	2	2
460	Ambalapara	1	1	2	2	2	2	2	2	2	2
461	Alengode	1	1	2	2	2	2	2	2	2	2
462	Alathur	1	1	2	2	2	2	2	2	2	2
463	Ayilur	1	1	2	2	2	2	2	2	2	2
464	Coyalmanam	3	2	5	6	7	8	9	10	11	12
465	Cherphassy	1	1	2	2	2	2	2	2	2	2
466	Chalavara	1	1	2	2	2	2	2	2	2	2
467	Chalivery	2	1	3	4	5	6	7	8	9	10
468	Ezhuvathuruthy	1	1	2	2	2	2	2	2	2	2
469	Elamkulam	1	1	2	2	2	2	2	2	2	2
470	Elappully	1	1	2	2	2	2	2	2	2	2
471	Eruthampathy	1	1	2	2	2	2	2	2	2	2
472	Erymayur	1	1	2	2	2	2	2	2	2	2
473	Idapatta	1	1	2	2	2	2	2	2	2	2
474	Idappal	1	1	2	2	2	2	2	2	2	2
475	Elavancherry	1	1	2	2	2	2	2	2	2	2
476	Kozhinjampara	2	1	3	4	5	6	7	8	9	10

TABLE XIV--(cont.)

[illegible]

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanapathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Palghat District—(cont.)											
500	Muthuthala	..	..	..	..	4	1	1	..	4	..
501	Moorkanad	..	..	..	..	2	..	1	1	4	..
502	Mankada	..	..	..	..	1	..	..	..	4	..
503	Melattoor	..	1	..	..	2	..	..	1	2	..
504	Mannarghat	..	1	1	..	3	..	..	..	4	..
505	Mundoor	..	1	..	..	1	..	..	..	5	..
506	Mankara	..	..	..	..	1	..	..	..	2	..
507	Mathur	..	3	..	..	1	..	..	..	4	..
508	Melarkode	..	..	..	..	1	..	..	..	5	..
509	Muthalamada	..	..	..	..	1	..	..	..	2	..
510	Mannur	..	1	..	..	..	..	..	..	4	..
511	Marutharode	..	..	..	..	2	..	..	..	4	..
512	Marancherry	..	..	..	..	1	..	..	..	6	..
513	Malampuzha	..	1	..	..	2	..	..	..	2	..
514	Nemmara	..	1	..	..	3	..	..	..	2	..
515	Nalleppilly	..	2	..	..	..	..	1	..	5	..
516	Nellaya	..	1	..	..	3	..	..	..	2	..
517	Nelliampathy	..	..	..	..	..	..	2	..	3	..
518	Nannamukku	..	..	..	..	..	..	..	..	4	..
519	Nagalassery	..	2	..	..	2	..	2	..	5	..
520	Ongallur	..	2	..	..	2	..	..	..	6	..
521	Ottapalam	..	2	1	1	..	..	..	..	4	..
522	Punnayur	..	..	..	..	1	..	..	..	1	..

TABLE XIV--(cont.)}

[illegible]

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Palghat District—(cont.)											
546	Thachanattukara	..	..	..	..	..	..	..	..	22	..
547	Thazhacode	..	..	..	..	..	..	..	..	22	..
548	Thiruvengapuram	..	..	..	..	..	..	..	..	36	..
549	Thavanur	..	..	..	..	..	..	..	..	66	..
550	Tannur	..	..	..	..	..	..	..	..	55	..
551	Thrikkideri	..	..	..	..	..	..	..	..	23	..
552	Thrithala	..	..	..	..	..	..	..	..	23	..
553	Thirumattacode	..	..	..	..	..	..	..	..	21	..
554	Vallapuzha	..	..	..	..	..	..	..	..	33	..
555	Vilayur	..	..	..	..	..	..	..	..	33	..
556	Vettathoor	..	..	..	..	..	..	..	..	16	..
557	Vandazhi	..	..	..	..	..	..	..	..	12	..
558	Vadakancherry	..	..	..	..	..	..	..	..	31	..
559	Vadakarapathy	..	..	..	..	..	..	..	..	16	..
560	Vadavannur	..	..	..	..	..	..	..	..	12	..
561	Vattamkulam	..	..	..	..	..	..	..	..	33	..
562	Vaniyamkulam	..	..	..	..	..	..	..	..	5	..
563	Vellinezhi	..	..	..	..	..	..	..	..	..	..
564	Vadakkedak	..	..	..	..	..	..	..	..	..	..
Total		148	66	7	3	149	5	29	4	403	4

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grams and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Palghat District—(cont.)											
546	nattukara	3	..	1	2	..	..	..	..	8	..
547	code	3	..	..	..	..	..	..	..	12	1
548	engapuram	4	..	..	..	1	..	..	..	12	2
549	ur	3	2	..	..	..	..	..	..	12	..
550	..	1	..	1	..	..	..	..	..	10	..
551	derl	..	..	..	..	..	..	..	..	8	..
552	la	2	..	..	..	..	..	..	..	5	..
553	attacode	3	1	1	..	..	..	..	..	9	1
554	azha	2	1	..	..	..	..	..	..	12	1
555	..	3	1	1	..	..	..	..	..	12	..
556	oor	1	..	2	..	..	..	..	..	12	3
557	zhy	7	2	..	1	..	..	..	..	12	2
558	uncherry	4	..	..	..	..	..	..	..	12	..
559	rapathy	4	2	..	..	..	..	..	..	12	..
560	unur	1	..	..	..	..	..	..	..	11	5
561	ikulam	1	..	1	..	..	..	..	1	8	2
562	mikulam	4	..	1	..	..	..	..	..	10	..
563	zhi	1	..	..	..	..	..	..	..	6	..
564	ackad	2	..	..	..	..	..	..	..	8	..
Total		315	34	37	4	9	4	157	8	1254	132

TABLE XIV — (cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Kozhikode District											
565	Azhiyur	2	2	..	..	1	..	..	..	3	..
566	Arikulam	..	..	..	..	9	..	..	..	3	..
567	Amarambalam	..	1	..	..	3	..	1	..	2	..
568	Areacode	2	..	..	..	2	..	..	..	2	..
569	Ambalavayal	..	..	..	..	3	..	..	..	3	..
570	Abdul Rahman Nagar	..	..	..	..	..	..	..	..	..	..
571	Ayancherry	..	..	..	..	5	..	..	..	..	..
572	Athavanad	..	..	..	..	3	..	1	..	2	..
573	Anakkayam	1	1	..	..	4	..	..	..	3	1
574	Athody	..	..	..	..	1	..	..	..	1	..
575	Reypore	..	..	..	..	2	..	1	1	..	..
576	Balussery	..	..	..	..	..	..	..	..	..	..
577	Battery	1	..	..	..	..	..	..	..	..	..
578	Chekkia	..	..	..	..	2	..	..	..	4	..
579	Chenkottukavu	..	..	..	..	4	..	..	..	4	..
580	Chemmancherry	..	..	..	..	2	..	..	..	5	..
581	Chengaroth	..	..	..	..	2	..	..	..	3	..
582	Cheruvannur	..	..	..	..	3	..	..	..	..	..
583	Chathamangalam	..	..	..	..	4	..	..	..	2	..
584	Cheriyamundam	..	..	..	..	4	..	1	..	2	..
585	Chengathara	..	..	2	..	3	1	1	..	2	..
586	Checode	3	..	..	..	2	..	..	..	3	..
587	Chelambra	..	..	..	..	1	..	..	..	1	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grains and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Kozhikode District—(cont.)											
565	Azhivur	1	1	..	..	..	..	3	1	10	4
566	Arikulam	..	..	..	..	..	..	..	..	12	..
567	Amarambalam	..	..	1	..	..	..	..	..	10	..
568	Aracode	1	..	..	..	..	..	..	..	8	..
569	Ambalavayal	5	..	..	..	..	..	..	..	11	..
570	Abdul Rahman Nagar	..	..	..	..	..	..	..	..	11	..
571	Ayancherry	1	..	..	..	..	..	..	..	12	..
572	Athavanad	2	..	..	..	..	..	3	1	10	3
573	Anakkayam	1	..	..	..	..	..	1	..	2	..
574	Athody	..	..	4	..	4	..	..	..	12	1
575	Beyyore	1	..	..	..	..	..	..	..	2	..
576	Balusseri	..	..	..	..	..	..	1	..	11	1
577	Battery	3	1	..	..	..	..	1	..	10	..
578	Chekkiad	1	1	1	..	..	..	1	..	12	1
579	Chembottukavu	1	1	..	..	..	..	5	..	9	1
580	Chemmancherry	..	..	..	..	..	..	..	..	3	..
581	Chengaroth	..	1	..	..	..	..	1	..	12	..
582	Cheruvannur	2	1	..	..	..	..	3	..	9	1
583	Chathamangalam	2	1	1	..	..	..	3	1	12	1
584	Cheriyamundam	1	..	..	..	..	..	1	..	12	..
585	Chengathara	1	..	..	..	..	..	1	..	2	..
586	Cherode	..	..	..	..	..	..	..	..	4	..
587	Chelambra	1	..	..	..	..	..	1	..	..	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy		
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	
1	2	3	4	5	6	7	8	9	10	11	12	
Kozhikode District—(cont.)												
588	Cherukavu	..	..	..	..	..	..	..	..	..	..	..
589	Cheruvannur (Kozhikode Block)	..	..	1	..	..	..	..	..	..	..	..
590	Cherode	..	..	..	..	2	..	..	..	4	..	..
591	Chelannur	..	..	..	..	..	..	..	..	2	..	..
592	Edayur	..	..	..	..	..	..	..	..	2	..	..
593	Edakkara	..	..	..	..	..	..	..	..	1	..	..
594	Edavanna	7	1	..	..	..	..	..	..	1	..	..
595	Elathur	..	..	..	..	..	..	..	..	4	..	..
596	Edachery	..	..	..	..	1	..	..	..	2	..	..
597	Eramala	..	..	..	..	..	..	..	..	..	..	..
598	Feroke	..	..	1	..	2	..	..	..	..	..	..
599	Irimbiliyam	..	..	..	..	1	..	..	..	4	..	..
600	Kuzhimanna	..	..	..	..	1	..	..	..	4	..	..
601	Kondotti	..	..	..	..	1	..	..	1	3	..	1
602	Kottakal	..	..	..	..	1	..	..	..	1	..	..
603	Kalikavu	1	1	..	..	4	..	..	..	2	..	..
604	Kalpachancherry	..	..	..	..	1	..	..	..	3	..	..
605	Kadalundy	..	..	..	..	1	..	..	..	2	..	..
606	Kattiparathy	..	1	..	..	1	..	..	..	5	..	..
607	Kuttiapuram	1	..	..	..	2	..	..	1	4	..	..
608	Kakoor	..	..	..	..	4	..	..	..	2	..	..
609	Kizhakothe	..	..	..	..	2	..	..	..	2	..	..
610	Koduvaly	..	..	..	..	1	..	..	..	2	..	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grains and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Kozhikode District—(cont.)											
588	Cherukavu	..	..	1	..	..	..	1	..	2	..
589	Cheruvannur (Kozhikode Block)	13	1	1	..	1	..	3	..	24	1
590	Cherode	..	..	1	..	..	1	..	..	4	1
591	Chelannur	..	..	..	..	..	..	2	..	12	..
592	Edayar	..	..	..	..	..	..	..	..	2	..
593	Edakkara	..	..	..	..	..	..	..	..	12	..
594	Edavanna	..	..	..	..	..	..	..	..	10	..
595	Elathur	..	1	1	..	..	..	3	1	12	2
596	Edathery	..	..	..	..	..	..	..	..	7	..
597	Eramalla	..	..	..	..	..	..	..	..	10	..
598	Feroke	..	..	..	..	..	..	1	..	12	..
599	Irimbittiam	..	..	1	..	..	..	3	..	10	..
600	Kushimanna	..	..	..	..	..	..	1	..	12	..
1	Kondotti	..	..	..	..	..	..	..	..	10	..
	Kottalal	..	..	..	..	..	..	..	..	4	..
	Kalikavu	..	..	..	..	..	..	..	..	4	..
	Kalpakancherry	..	..	2	..	..	..	..	..	9	..
	Kadalundy	..	1	1	..	..	..	4	..	6	..
	Kattiparathy	..	..	1	..	..	..	1	..	2	..
	Kuttiyuram	..	..	2	..	..	..	1	..	12	..
	Kakoor	..	..	3	..	..	..	1	..	12	..
	Kizhakoil	..	..	1	..	..	..	1	1	12	..
	Koduvally	..	..	2	..	..	..	4	1	12	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Kozhikode District—(cont.)											
634	Mampad	..	..	..	..	1	..	..	..	4	..
635	Malapuram	..	..	..	..	3	..	..	..	2	..
636	Mukkom	..	2	..	..	2	..	..	1	5	..
637	Morayur	..	..	..	..	1	..	2	..	6	..
638	Munniyur	..	..	..	..	..	..	1	..	3	..
639	Marakara	..	..	..	..	3	..	..	1	5	..
640	Nediyirippu	..	..	..	..	2	..	..	..	1	..
641	Nannambra	..	1	..	..	4	..	..	..	2	..
642	Nilambur	..	..	..	..	4	..	..	..	1	..
643	Nochad	..	6	..	..	4	..	1	..	..	..
644	Nanninda	..	..	..	..	..	..	..	..	2	..
645	Naduvaanur	..	..	..	..	..	..	..	..	1	..
646	Nadapuram	..	..	..	..	..	..	..	..	..	..
647	Naripettah	..	..	..	..	..	..	..	..	..	..
648	Narikunni	..	..	..	..	..	..	..	..	..	..
649	Onchiyam	..	..	..	..	2	..	..	..	3	..
650	Purakady	..	..	..	..	1	..	..	..	2	..
651	Panangad	..	..	..	..	2	..	..	..	2	..
652	Poothady	..	..	..	..	..	..	..	..	..	..
653	Purameri	..	..	..	..	..	..	..	..	..	..
654	Payyoli	..	1	..	..	2	..	..	..	2	..
655	Perambra	..	..	4	..	5	..	..	..	2	..
656	Parappanangady	..	..	..	..	1	..	1	..	4	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grains and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Kozhikode District—(cont.)											
634	Alandipad	2	..	1	..	..	..	..	..	8	..
635	Malapuram	2	..	..	..	..	..	..	..	10	..
636	Mukkom	..	..	..	..	..	..	..	..	12	..
637	Morayur	..	..	..	..	..	..	..	..	8	..
638	Munniyur	1	1	..	..	..	..	..	..	12	..
639	Marakara	2	..	..	..	..	..	..	..	12	..
640	Nediyarippu	..	1	..	..	..	1	..	..	6	..
641	Nannambra	..	..	2	..	..	..	..	..	12	..
642	Nilambur	2	..	..	..	..	..	..	..	21	..
643	Nochad	..	..	..	..	..	1	..	..	7	..
644	Nannunda	..	..	1	..	..	..	..	..	12	..
645	Nadunannur	..	..	..	..	..	..	..	..	2	..
646	Nadaputram	..	..	..	..	..	..	..	..	..	..
647	Naripettah	..	..	..	..	..	..	..	..	..	..
648	Narikunni	..	1	..	..	..	..	..	..	12	..
649	Onchayam	2	1	2	..	..	..	..	..	10	..
650	Purakkady	2	1	..	..	..	..	..	..	6	..
51	Panasead	2	..	..	..	..	..	..	..	2	..
52	Poothack	1	..	..	..	..	..	..	..	..	..
53	Purameri	..	..	..	..	..	..	..	..	6	..
54	Payyoli	4	1	..	..	..	..	..	..	12	..
55	Perambra	1	..	..	..	..	..	..	..	10	..
6	Parappananeady	4	..	1	..	..	..	..	..	12	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Kozhikode District—(cont.)											
680	Tiruvally	2	1	..	..	2	..	..	..	4	..
681	Thenmala	..	..	..	..	..	..	..	..	..	..
682	Thuvur	..	..	..	..	..	..	..	..	..	..
683	Tiruvampady	1	1	..	..	1	1	..	..	3	..
684	Thalakulathur	..	..	..	..	2	..	..	..	3	..
685	Thennipalam	..	..	..	..	..	..	..	..	..	..
686	Uliyeri	..	..	..	..	..	..	..	..	..	..
687	Unnikulam	..	..	..	..	..	..	..	..	..	..
688	Urangathiri	..	..	..	..	2	..	..	..	1	..
689	Uragom	..	..	..	..	5	..	..	..	1	..
690	Vengara	..	..	..	..	..	..	..	..	..	..
691	Vazhakkad	..	..	..	..	..	..	1	..	..	..
692	Vettom	..	..	..	..	..	..	..	..	..	..
693	Vanimal	..	..	..	..	2	..	..	..	..	..
694	Vythiri	1	1	..	..	3	..	..	..	3	..
695	Velem	..	..	..	..	2	..	..	..	5	..
696	Valavannur	..	..	..	..	3	..	12	..	2	..
697	Villiapally	1	..	..	..	3	..	..	..	2	..
698	Vallukunnu	..	..	..	..	3	..	..	..	4	..
699	Wandoor	1	1	..	..	3	1	..	..	6	..
Total		76	32	6	..	300	8	37	11	311	3



TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grains and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Cananore District—(cont.)											
723	Delampady	3	1	1	.	..	..	1	..	9	1
724	Edavaka	2	2	.	..	..	..	2	..	12	3
725	Eramom	5	1	..	..	..	..	4	1	10	2
726	Elayavoor	..	..	..	..	..	..	4	1	12	3
727	Eruvassi	..	..	..	..	..	..	1	..	2	2
728	Ezhome	3	..	..	..	..	..	5	..	10	.
729	Edakkad	4	..	..	..	..	..	4	..	13	2
730	Elery	..	..	1	..	..	..	2	..	10	.
731	Eranholi	1	..	..	..	..	..	..	..	5	..
732	Irikkur	4	1	..	..	..	..	4	1	9	2
733	Kumbila	2	1	1	..	2	..	1	..	9	1
734	Kadadka	..	..	..	..	..	..	..	..	2	.
735	Kanbangad	4	..	..	..	..	..	..	..	24	3
736	Karadka	1	..	1	..	1	..	4	..	10	..
737	Kasaragod	..	..	..	..	..	..	..	..	5	..
..	Kinanur-Karundalam	1	1	2	..	..	..	2	..	10	..
..	Kurumattoor	2	1	1	..	..	..	2	..	11	1
..	annapuram	3	1	1	..	..	..	4	..	10	3
..	olacherry	2	1	..	..	..	..	4	2	7	2
..	uttattoor	1	..	..	..	..	..	..	..	7	1
..	adanapally-Panapuzha	2	..	..	..	..	..	7	1	10	1
..	Sunhimangalam	4	1	1	..	..	..	2	..	10	1
..	ari vellur-Peralam	3	..	1	..	..	..	3	..	10	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
	Cannanore District—(cont.)										
746	Kappad	..	..	..	..	1	..	..	..	1	..
747	Keezhur-Chavassery	..	..	..	..	1	..	..	1	3	..
748	Kunnothuparamba	..	..	..	..	3	..	..	..	1	..
749	Kuthuparamba	..	5	..	..	3	..	1	1	4	..
750	Kadirur	..	..	..	..	2	..	..	..	1	..
751	Kottiyeri	..	..	..	..	..	..	..	..	1	..
752	Kolayad	..	3	..	..	1	..	..	..	1	..
753	Kottayam	..	..	..	..	..	..	..	..	1	..
754	Kangol Alipadamba	..	..	..	..	..	..	..	..	1	..
755	Kallissery	..	..	..	..	2	..	..	..	..	..
756	Mananthoddy	..	5	..	..	1	..	1	1	2	..
757	Muzhakunnu	..	..	..	..	1	..	3	1	..	..
758	Mokery	..	3	..	..	1	..	1	..	3	..
759	Mattanur	..	1	..	..	..	..	..	..	..	..
760	Mangattidom	..	..	1	..	2	..	1	..	..	..
761	Mattool	..	..	..	..	3	..	..	1	..	..
762	Madai	..	..	..	..	1	2	..	..	..	..
763	Mayvil	..	..	..	..	..	..	..	..	..	..
764	Muzhippilangad	..	1	..	..	1	..	..	1	..	..
765	Munderi	..	1	..	..	4	..	1	..	..	..
766	Mangalpady	..	..	..	..	2	..	..	..	..	..
767	Manjeswar	..	..	..	..	1	..	..	..	1	..
768	Madhur	..	2	..	..	6	1	..	..	..	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grams and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Cannanore District—(cont.)											
746	Kappad	5						1			3
747	Keczhur-Chavassery	1						3			4
748	Kunnothuparamba	7						6			6
749	Kuthuparamba	1									
750	Kadurur	1									
751	Kottiyeri	1									
752	Kolayad	1									
753	Kottayam	1									
754	Kangol Alipadamba	2									
755	Kalliasery										
756	Marantoddy	5									
757	Muzhakunnu	1									
758	Mokery	1									
759	Mattannur	1									
760	Mangattidom	6									
761	Matool	5									
762	Madai	8									
763	Mayyil	2									
764	Muzhippilangads	6									
765	Munderi	1									
766	Mangalpady	1									
767	Manjeswar	1									
768	Madhur	1									

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Cannanore District—(cont.)											
746	Kappad	..	..	..	..	1	..	..	..	1	..
747	Keezhur-Chavassery	..	..	..	..	1	..	..	1	3	..
748	Kunnothuparamba	..	..	..	..	3	..	..	1	4	..
749	Kuthuparamba	8	5	..	..	2	..	..	..	1	..
750	Kadirur	..	..	..	..	..	..	..	..	1	..
751	Kottiyeri	..	..	..	..	..	..	..	..	1	..
752	Kolayad	4	3	..	..	..	..	..	..	1	..
753	Kottayam	..	..	..	..	1	..	..	..	1	..
754	Kangol Alipadamba	..	..	..	..	1	..	..	..	1	..
755	Kallissery	5	3	..	..	2	..	..	1	3	..
756	Mananthoddy	..	..	..	..	1	..	..	1	..	..
757	Muzhakunnu	..	..	..	..	1	..	..	1	..	..
758	Mokery	3	2	..	..	..	..	..	..	3	..
759	Mattanur	1	..	1	..	..	..	..	..	..	..
760	Mangattidom	..	..	..	..	..	..	..	1	..	..
761	Mattool	..	..	..	..	3	..	..	..	1	..
762	Madai	..	..	..	..	1	..	..	..	..	..
763	Mayvil	..	..	..	..	..	..	..	..	..	..
764	Muzhippilangad	1	1	..	..	1	..	..	1	1	..
765	Munderi	..	..	..	..	4	..	..	..	..	..
766	Mangalpaday	..	..	..	..	2	..	..	..	..	..
767	Manjeswar	..	..	..	..	1	..	..	..	1	..
768	Madhur	2	..	..	..	6	..	..	..	..	..

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grams and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
	Cannanore District—(cont.)										
746	Kappad	5	3	1	..	..	..	1	..	9	3
747	Keerhur-Chavassery	1	1	..	..	..	..	3	..	9	4
748	Kunnothuparamba	7	..	..	..	..	..	1	..	12	..
749	Kuthuparamba	1	..	1	..	..	..	6	..	24	6
750	Kadirur	1	..	..	..	..	..	..	..	4	..
751	Kottiyeri	1	..	..	..	..	..	..	..	2	..
752	Kolayad	2	..	..	..	..	..	..	..	10	4
753	Kottayam	..	..	..	..	..	..	2	1	2	..
754	Kangol Alipadamba	5	1	..	..	..	..	4	..	10	..
755	Kallassery	1	..	2	..	1	..	1	..	10	1
756	Manantoddy	3	1	..	..	..	..	1	..	10	2
757	Muzhakunnu	1	..	..	..	..	..	2	..	12	5
758	Nokery	6	..	..	..	..	..	1	..	8	2
759	Mattannur	5	1	..	..	2	1	1	..	12	2
760	Mangattidom	8	2	..	..	..	..	..	..	9	2
761	Matrool	2	1	..	..	..	..	4	..	11	3
762	Madai	6	1	..	..	..	..	3	..	10	..
763	Mayyil	..	1	..	..	..	..	3	..	6	1
764	Muzhippalangadi	..	1	1	..	..	..	3	1	13	5
765	Munderi	3	1	1	..	..	..	8	3	11	2
766	Mangalpady	1	1	1	..	..	..	2	..	3	..
767	Manjeswar	3	1	1	..	..	..	2	..	8	1
768	Madhur	2	1	..	..	..	..	1	..	11	2

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Cannanore District—(cont.)											
769	Meenja	..	..	..	..	..3	..	..	..	..	..
770	Meloth	..	..	..	..	..3	..	..	..	..	..
771	Madikai	..	..	..	..	..1	..	..1	..	..5	..
772	Mulyar	..	..	..	..	..3	..	..2	..	..2	..
773	Melur	..	..	..	..	..2	..	..1	..	..2	..
774	Nileswar	..2	..2	..	..	..2	..	..	..	..	..
775	Narath	..	..	..	..	..2	..	..	..	..	..
776	Naduviel	..	..	..	..	..1	..	..	..	..	..
777	Panamaram	..5	..3	..	..	..4	..	..	..	..2	..
778	Pinarai	..	..	..	..	..	..	..1	..	..1	..
779	Perayoor	..	..	..	..	..	..	..	..	..4	..2
780	Panniyannur	..1	..1	..	..	..2	..	..1	..1	..1	..
781	Pattiam	..2	..3	..	..	..	..	..	..	..	..
782	Payam	..5	..2	..	..	..1	..	..1	..	..1	..
783	Panoor	..2	..2	..	..	..6	..	..	..	..	..
784	Peringome-Vayakkara	..	..	..	..	..6	..	..3	..2	..1	..
785	Payyannur	..7	..5	..1	..	..	..	..	..	..1	..
786	Padiyur-Kalliad	..5	..5	..	..	..1	..	..	..	..1	..
787	Peralassery	..	..	..	..	..1	..	..	..	..2	..
788	Puzhathy	..2	..	..	..	..1	..	..	..	..3	..
789	Pallikunnu	..1	..122	..
790	Pappinisseri	..5	..113	..
791	Pariyaram214	..

TABLE XIV—(cont.)

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TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grains and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Cannanore District—(cont.)											
769	Meenja	..	..	..	..	..	..	..	..	..	..
770	Meloth	..	..	..	..	..	..	..	..	..	..
771	Madikal	..	..	..	..	..	..	..	..	..	..
772	Mulyar	..	..	..	..	..	..	..	..	..	..
773	Metur	..	..	..	..	..	..	..	..	..	..
774	Nilewar	..	..	..	..	..	..	..	..	..	..
775	Narath	..	..	..	..	..	..	..	..	..	..
776	Naduvil	..	..	..	..	..	..	..	..	..	..
777	Panamaram	..	..	..	..	..	..	..	..	..	..
778	Pinarai	..	..	..	..	..	..	..	..	..	..
779	Peravoor	..	..	..	..	..	..	..	..	..	..
780	Panniyannur	..	..	..	..	..	..	..	..	..	..
781	Patnam	..	..	..	..	..	..	..	..	..	..
782	Payam	..	..	..	..	..	..	..	..	..	..
783	Panoor	..	..	..	..	..	..	..	..	..	..
784	Peringome-Vayakkara	..	..	..	..	..	..	..	..	..	..
785	Payannur	..	..	..	..	..	..	..	..	..	..
786	Padiyur-Kalliad	..	..	..	..	..	..	..	..	..	..
787	Peralassery
788	Puzhathy
789	Pallikunnu
790	Pappinissery
791	Pariyaram

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TABLE XIV—(cont.)

Serial number	Name of Panchayat	Milk		Milk products		Tea		Coffee		Edible oils and fats and vanaspathy	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
1	2	3	4	5	6	7	8	9	10	11	12
Cannanore District—(cont.)											
792	Pilicode	..	..	..	..	2	..	1	..	4	..
793	Padue	..	..	..	..	2	..	..	..	3	..
794	Pallikkara	3	..	..	..	2	..	1	1	2	..
795	Panathady	..	..	..	..	..	..	..	..	2	..
796	Paivelike	..	..	..	..	..	..	..	..	..	..
797	Peringathur	..	..	..	..	..	..	1	1	2	..
798	Pullur Periya	..	..	1	..	4	..	..	..	1	..
799	Ramanthaly	..	..	..	..	2	..	..	..	..	..
800	Sreekanthapuram	1	1	..	..	2	..	..	..	..	..
801	Trikkarpur	..	..	..	..	2	1	..	..	..	..
802	Taliparamba	9	3	..	..	2	..	..	..	2	..
803	Tadikadavu	2	1	..	..	3	..	1	1	2	..
804	Trippangottur	2	1	..	..	1	..	..	..	1	..
805	Tavinhal	2	1	..	..	..	..	..	..	1	..
806	Tirunelli	4	3	..	..	..	..	..	..	..	..
807	Thondernad	..	..	..	..	1	..	..	..	2	..
808	Udma	3	2	..	..	4	..	..	..	..	..
809	Vengad	..	..	..	..	1	..	1	1	1	..
810	Vellamunda	2	1	..	..	1	..	..	..	1	..
811	Vorkady	..	..	..	..	4	..	..	..	1	..
	Total	120	61	7	..	192	3	35	19	149	5
	Grand total	685	345	36	5	1505	48	419	77	2273	32

TABLE XIV—(cont.)

Serial number	Name of Panchayat	Cereals, grains and their products		Sweetening agents		Non-alcoholic beverages		Miscellaneous		Total	
		T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.	T.	Ad.
		13	14	15	16	17	18	19	20	21	22
Cannanore District—(cont.)											
792	Pilicode	..	1	3	..	..	..	3	1	13	1
793	Padne	2	..	1	..	..	..	3	..	11	1
794	Pallikara	2	..	..	..	..	..	..	..	10	1
795	Panathady	4	1	1	..	..	..	1	..	8	1
796	Paivelike	..	..	..	..	..	..	..	..	..	..
797	Peringathur	2	..	..	..	..	..	..	..	5	1
798	Fullur Periya	3	1	1	..	..	..	4	..	10	1
799	Ramanthaly	3	..	..	..	..	..	..	..	9	..
800	Sreechandapuram	4	3	..	..	..	..	3	1	10	5
801	Trikkarpur	3	1	2	..	..	..	1	..	10	2
802	Taliparamba	4	1	..	..	..	..	1	..	10	2
803	Indikadavu	3	2	..	..	..	..	6	..	24	4
804	Trip angottur	7	..	..	..	1	..	..	..	10	4
805	Tavinhal	7	3	..	..	..	..	1	..	12	1
806	Tirunelli	3	..	..	..	..	..	2	3	12	4
807	Thondernad	6	1	..	..	..	..	5	1	12	6
808	Udma	1	..	1	..	..	..	3	1	9	2
809	Vengad	4	..	..	..	..	..	..	..	7	1
810	Vellamunda	5	1	..	..	..	..	3	..	12	2
811	Vorkady	1	1	1	..	..	..	1	..	5	1
	Total	294	60	50	1	11	1	212	26	1070	176
	Grand total	1867	219	207	6	42	11	965	63	7959	811

TABLE XV
Statement showing the details of Hospital diet articles analysed during 1966-67

Serial number	Name of Hospital	Milk		Butter		Ghee		Bread		Coffee	
		T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.
1	2	3	4	5	6	7	8	9	10	11	12
Trivandrum District											
1	Medical College Hospital, Trivandrum..	37	22	2	..	1	1	14	3	16	1
2	S.A.T. Hospital, Trivandrum ..	18	7	..	..	..	..	13	..	13	..
3	General Hospital, Trivandrum ..	402	239	..	..	..	..	14	11	..	..
4	W. and C. Hospital, Trivandrum ..	61	29	..	..	..	..	10	1	8	3
5	Mental Hospital, Trivandrum ..	23	10	..	..	..	..	1	1	12	1
6	Ophthalmic Hospital, Trivandrum ..	18	12	..	..	..	..	3	1	2	12
7	T.B. Hospital, Pulayanarkottah ..	23	8	..	..	..	..	15	10	18	..
8	T.B. Centre, Trivandrum ..	4	3	..	..	..	..	..	..	..	..
9	Fort Hospital, Trivandrum ..	..	..	..	..	..	..	1	..	..	..
10	Government Hospital, Peroorkada ..	18	6	..	..	..	..	14	..	8	5
11	Secondary Health Centre, Neyyattin-kara ..	12	4	..	..	..	..	10	3	..	..
12	Taluk Headquarters Hospital, Nedu-mangad ..	1	..	..	..	..	..	1	..	..	..
13	Contagious Diseases Hospital, Irant-muttom ..	3	2	..	..	..	..	6	5	..	..
14	Government Hospital, Parasala ..	..	..	..	..	..	..	1	..	..	..
15	Government Hospital, Chirayinkil ..	..	..	..	..	..	..	..	..	..	..
	Total	620	342	2	..	1	1	103	35	77	22

TABLE XV—(cont.)

TABLE XV—(cont.)														
Serial number	Name of Hospital	Coconut oil		Jaggery		Rice		Cereals, grams and their products		Miscellaneous		Total		
		T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.	
Trivandrum District—(cont.)														
1	Medical College Hospital, Trivandrum	14	..	2	..	..	..	14	..	..	..	100	27
2	S.A.T. Hospital, Trivandrum	9	..	..	..	..	..	16	3	..	..	71	10
3	General Hospital, " "	15	..	..	..	..	..	1	..	..	..	432	50
4	W. and C. Hospital, " "	..	..	..	..	..	..	7	1	..	..	94	34
5	Mental Hospital, " "	8	..	..	..	..	..	3	..	..	..	74	12
6	Ophthalmic Hospital, " "	12	..	..	..	..	..	3	..	..	..	28	13
7	T.B. Hospital, Pulayanarkottah	2	..	..	..	..	..	18	4	..	..	76	34
8	T.B. Centre, Trivandrum	..	..	..	..	..	..	..	..	..	..	4	3
9	Fort Hospital, " "	..	..	..	..	..	..	..	..	..	..	1	..
10	Government Hospital, Peroorlada	11	..	..	..	..	..	15	5	..	..	66	16
11	Secondary Health Centre, Neyyattinkara	..	..	..	..	..	..	..	..	..	..	42	9
12	Taluk Headquarters Hospital, Nedumangad	10	..	..	..	..	..	10	2	..	..	9	..
13	Contagious Diseases Hospital, Irattimuttam	..	..	..	..	..	..	1	..	..	..	3	..
14	Government Hospital, Parasala	4	..	..	..	..	..	30	..	..	..	8	2
15	Government Hospital, Chirayinkeezh	1	..	..	..	..	..	1	..	..	..	56	5
Total		96	15	..	..	..	132	15	12	..	1038	415	..

TABLE XV—(cont.)

Serial number	Name of Hospital	Milk		Butter		Ghee		Bread		Coffee	
		T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.
1	2	3	4	5	6	7	8	9	10	11	12
Quilon District											
16	District Hospital, Quilon.	43	24	..	..	..	..	7	2	..	..
17	Victoria Hospital, Quilon	19	2	..	..	..	..	1	1	..	..
18	Government Hospital, Adoor	6	1	..	..	..	..	5	2	1	..
19	Government Hospital, Kozhanchery	22	3	..	..	..	..	4	1	..	..
20	Primary Health Centre, Konni	5	4	..	..	..	..	1	1	..	..
21	Taluk Headquarters, Hospital, Kottarakara	15	8	..	..	..	..	5	2	1	..
22	Government Hospital, Karunagapally	6	6	..	..	..	..	8	4	2	..
23	T. B. Clinic, Karunagapally	6	3	..	..	..	..	5	1	7	2
24	Primary Health Centre, Mayyanad	2	1	..	..	..	..	2	1	..	..
25	Government Hospital, Punalur	15	3	..	..	..	..	10	4	1	..
26	Government Dispensary, Elanthoor	2	0	..	..	..	..	2	1	..	..
27	Government Hospital, Pathanamthitta	10	1	..	..	..	..	4	3	..	..
28	Government Dispensary, Kadampanitta.	7	0	..	..	..	..	9	6	..	..
29	Primary Health Centre, Ranni	2	0	..	..	..	..	1	0	..	..
30	Primary Health Centre, Chavara	1	0	..	..	..	..	1	0	..	..
31	Primary Health Centre, Pathanapuram ..	1	0	1	0
	Total	162	56	66	29	12	2

TABLE XV—(cont.)

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TABLE XV—(cont.)

Serial number	Name of Hospital	Coconut oil		Jaggery		Rice		Cereals, grams and their products		Miscellaneous		Total	
		T.		Un.		T.		Un.		T.			
		13	14	15	16	17	18	19	20	21	22	23	24
Quilon District—(cont.)													
16	District Hospital, Quilon	5	..	..	..	..	..	8	2	..	63	28	3
17	Victoria Hospital, Quilon	1	..	..	..	..	..	1	1	..	22	3	4
18	Government Hospital, Quilon	..	..	..	..	..	..	4	..	..	22	4	4
19	Government Hospital, Adoor	..	..	..	..	..	..	..	..	..	32	5	5
20	Primary Health Centre, Kozhencherry	..	..	..	..	..	..	..	..	..	6	..	..
21	Taluk Headquarters Hospital, Kottarakara	..	..	..	..	..	..	..	..	..	..	..	..
22	Government Hospital, Karunagapally	..	..	..	..	..	..	..	..	..	..	..	..
23	T.B. Clinic, Karunagapally	3	..	..	..	..	..	..	..	..	..	..	..
24	Primary Health Centre, Madyanad	7	..	..	..	..	..	..	..	..	..	..	..
25	Government Hospital, Punalur	7	..	..	..	..	..	..	..	..	..	..	..
26	Government Dispensary, Elanthoor	..	..	..	4	2	14	4	..	..	28	10	10
27	Government Hospital, Pathanamthitta	..	..	..	..	..	13	1	..	..	41	12	7
28	Primary Health Centre, Kadamamthitta	..	..	..	..	..	..	..	..	..	38	7	2
29	Primary Health Centre, Ranni	..	..	..	..	..	11	..	..	..	45	8	1
30	Primary Health Centre, Chavara	..	..	..	..	..	..	..	..	..	4	1	4
31	Primary Health Centre, Pathanapuram	..	..	..	..	..	..	..	..	..	14	6	6
32	..	..	..	..	..	..	..	..	..	..	3	..	..
33	..	..	..	..	..	..	..	..	..	..	2	..	..
34	Total	..	..	..	4	2	60	5	..	..	342	34	..

TABLE XV—(cont.)

Serial number	Name of Hospital	Milk		Butter		Ghee		Bread		Coffee	
		T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.
1	2	3	4	5	6	7	8	9	10	11	12
Alleppey District											
32	W & C Hospital, Alleppey	237	39	..	..	..	..	15	5	14	1
33	District Hospital, Alleppey	212	113	..	..	..	..	17	3	13	..
34	Leprosy Sanatorium, Noornad	32	..	..	..	..	..	34	2	37	1
35	Government Hospital, Hariapad	13	..	..	..	..	..	12	2	..	..
36	Government Hospital, Chengannur	9	1	..	..	..	..	11	7	..	..
37	Government Hospital, Kayamkulam	123	46	..	..	..	..	10	2	..	..
38	Government Hospital, Mavelikara	21	11	..	..	..	..	8	..	1	..
39	Government Hospital, Tiruvalla	29	16	..	..	..	..	..	..	..	..
40	Taluk Headquarters Hospital, Shertallai	25	4	..	..	1	..	10	3	11	..
41	Primary Health Centre, Arookutty	..	..	..	..	..	..	..	..	..	..
	Total	701	230	..	..	1	..	117	24	76	2
Kottayam District											
42	Medical College Hospital, Kottayam	20	5	..	..	..	..	2	..	3	1
43	Government Hospital, Changanacherry	8	6	..	..	..	..	..	1	..	..
44	Government Hospital, Kanjirapally	9	8	..	..	..	..	..	1	..	..
45	Government Hospital, Kuthattukulam	147	96	..	..	..	..	11	1	..	..
46	Government Hospital, Vaikom	9	2	..	..	..	..	1	..	..	..
47	Taluk Headquarters Hospital, Palai	210	122	..	..	..	..	7	..	..	..

TABLE XV—(cont.)

Serial number	Name of Hospital	Coconut oil		Jaggery		Rice		Cereals, grams and their products		Miscellaneous		Total	
		T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.
		13	14	15	16	17	18	19	20	21	22	23	24
Alleppey District—(cont.)													
32	W & C Hospital, Alleppey	14	..	..	..	..	..	14	..	..	..	294	45
33	District Hospital, Alleppey	13	..	..	..	..	..	10	..	..	..	268	119
34	Leprosy Sanatorium, Noornad	35	..	34	..	..	..	35	..	1	..	208	3
35	Government Hospital, Haripad	12	..	..	..	..	..	12	..	..	..	49	3
36	Government Hospital, Chengannur	..	..	..	..	..	..	..	..	..	..	9	1
37	Government Hospital, Kayamkulam	..	..	..	..	..	..	..	..	..	..	136	53
38	Government Hospital, Mavelikara	..	..	..	..	..	..	1	..	..	..	..	13
39	Government Hospital, Tiruvalla	..	..	..	..	..	..	9	..	..	..	54	23
40	Taluk Headquarters Hospital, Shertallai	11	..	..	..	..	..	12	3	1	..	71	10
41	Primary Health Centre, Arookutty	..	..	..	..	..	..	..	..	2	..	2	..
	Total	94	..	35	..	..	..	95	14	6	..	1125	270
Kottayam District—(cont.)													
42	Medical College Hospital, Kottayam	1	..	..	..	..	..	5	1	..	..	31	7
43	Government Hospital, Changanacherry	5	..	..	..	..	..	5	3	..	..	18	9
44	Government Hospital, Kanjirappally	1	..	..	..	..	..	3	1	1	..	16	10
45	Government Hospital, Kuthattukulam	11	..	..	..	..	..	22	2	..	..	191	99
46	Government Hospital, Vaikom	1	..	..	..	..	..	1	..	..	..	12	..
47	Taluk Headquarters Hospital, Palai	7	..	..	..	..	..	7	..	..	..	231	122

TABLE XV—(cont.)

Serial number	Name of Hospital	Milk		Butter		Ghee		Bread		Coffee	
		T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.
1	2	3	4	5	6	7	8	9	10	11	12
Kottayam District—(cont.)											
48	Government Hospital, Mundakayam	10	2	..	..	..	..	3	2	..	..
49	Do. Sachivothamapuram	3	1	..	..	..	..	1	1	..	..
50	Primary Health Centre, Karukachal	3	2	..	..	..	..	7	..	..	..
51	Government Hospital, Thottakadu	7	2	..	..	..	..	..	..	..	..
	Total	426	246	..	..	..	..	34	5	3	1
Ernakulam District											
52	District Hospital, Ernakulam	133	43	1	..	..	..	11	4	14	..
53	W. & C. Hospital, Mattancherry	7	3	..	..	..	..	10	..	10	3
54	Government Hospital, Cochin	32	4	..	..	..	..	11	1	11	7
55	Do. Palluruthy	13	2	..	..	..	..	3	1	6	5
56	Do. Parur	9	1	..	..	..	..	2	1	1	..
57	Do. Ayyampilly	..	..	..	..	..	..	2	1	1	..
58	Do. Kothamangalam	..	..	..	..	..	..	..	..	..	..
59	Primary Health Centre, Angamali	7	4	..	..	..	..	1	..	..	..
60	Do. Edappally	..	..	..	..	..	..	1	..	..	..
61	Government Dispensary, Poothotta	6	1	..	..	..	..	1	..	..	..
62	Primary Health Centre, Kumbalangi	5	..	..	..	..	..	1	..	..	..

TABLE XV—(cont.)

Serial number	Name of Hospital	Milk		Butter		Ghee		Bread		Coffee	
		T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.
1	2	3	4	5	6	7	8	9	10	11	12
Ernakulam District—(cont.)											
63	Primary Health Centre, Kalady	19	1	..	..	..	..	1	0	..	..
64	Government Hospital, Thodupuzha	1	0	..	..	..	..	1	1	..	..
65	Do. Mulanthuruthy	..	..	..	..	..	..	..	..	..	..
66	Do. Alwaye	1	1	..	..	..	..	5	0	4	0
67	Taluk Headquarters Hospital, Muvattupuzha	47	36	..	..	..	..	2	1	1	0
68	Primary Health Centre, Narakkal	..	..	..	..	..	..	..	..	..	..
69	T.B. Clinic, Palluruthy	2	0	..	..	..	..	5	1	2	1
70	Government Hospital, Kadayirupu	9	2	..	..	..	..	1	0	..	..
71	Do. Perumbavoor	9	7	..	..	..	..	1	0	..	..
72	Government Dispensary, Chowara	5	0	..	..	..	..	1	0	..	..
73	Primary Health Centre, Ezhikara	3	0	..	..	..	..	..	..	..	..
74	Do. Ramamangalam	8	7	..	..	..	..	..	..	..	..
75	Government Hospital, Tripunithura	2	0	..	..	..	..	1	0	..	..
76	Government Dispensary, Parakadavu	1	0	..	..	..	..	1	0	..	..
77	Do. Koonammavu	..	..	..	..	..	..	1	0	..	..
Total		320	112	1	..	..	..	62	11	50	16

TABLE XV—(cont.)

Serial number	Name of Hospital	Coconut oil		Jaggery		Rice		Cereals, grams and their products		Miscellaneous		Total	
		T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.
	Ernakulam District—(cont.)	13	14	15	16	17	18	19	20	21	22	23	24
63	Primary Health Centre, Kalady	..	..	..	..	..	..	..	..	..	..	..	..
64	Government Hospital, Thodupuzha	..	..	..	..	..	..	..	..	..	..	..	..
65	Do. Mulanthuruthy	..	..	..	..	..	..	..	..	..	..	..	..
66	Do. Alwaye	..	..	..	..	..	..	..	..	..	..	..	..
67	Taluk Headquarters Hospital, Muvattupuzha	..	..	..	..	..	..	..	..	..	..	..	..
68	Primary Health Centre, Nerakkal	..	..	..	..	..	..	..	..	..	..	..	..
69	T.B. Clinic, Palluruthy	..	..	..	..	..	..	..	..	..	..	..	..
70	Government Hospital, Kadayuruppu	..	..	..	..	..	..	..	..	..	..	..	..
71	Do. Perumbavoor	..	..	..	..	..	..	..	..	..	..	..	..
72	Government Dispensary, Chowara	..	..	..	..	..	..	..	..	..	..	..	..
73	Primary Health Centre, Ezhikara	..	..	..	..	..	..	..	..	..	..	..	..
74	Do. Ramamangalam	..	..	..	..	..	..	..	..	..	..	..	..
75	Government Hospital, Tripunithura	..	..	..	..	..	..	..	..	..	..	..	..
76	Government Dispensary, Parakadavu	..	..	..	..	..	..	..	..	..	..	..	..
77	Do. Koonammavu	..	..	..	..	..	..	..	..	..	..	..	..
	Total	83	..	..	..	..	116	22	15	..	659	161	..

TABLE XV—(cont.)

Serial number	Name of Hospital	Milk		Butter		Ghee		Bread		Coffee	
		T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.
1	2	3	4	5	6	7	8	9	10	11	12
Trichur District											
78	District Hospital, Trichur	111	46	..	..	..	..	16	4	12	..
79	Mental Hospital, Trichur	12	3	..	..	..	..	12	4	11	..
80	Maternity Hospital, Trichur	13	5	..	..	..	..	..	..	..	..
81	K. V. Sanatorium, Mulamkunnathukavu	18	5	..	..	..	..	13	5	15	..
82	Government Hospital, Cherpu	3	..	..	..	..	..	3	2	1	..
83	Do. Chalakudy	8	..	..	..	..	..	3	1	..	..
84	Do. Irinjalakuda	10	4	..	..	..	..	3	..	..	..
85	Leprosy Hospital, Koratty	54	5	..	..	..	..	6	3	7	..
86	Government Hospital, Chowghat	5	..	..	..	..	..	4	1	4	..
87	Do. Kattoor	8	3	..	..	..	..	1	1	2	..
88	Government Dispensary, Tripprayar	7	5	..	..	..	..	3	2	2	..
89	Government Hospital, Mala	12	7	..	..	..	..	4	2	4	..
90	Primary Health Centre, Mattathur	2	..	..	..	..	..	..	..	..	1
91	Government Hospital, Kunnankulam	10	..	..	..	..	..	..	..	7	..
92	Do. Puthukad	8	4	..	..	..	..	..	..	1	..
93	Do. Valapad	10	1	..	..	..	..	10	6	10	..
94	Government Dispensary, Anthicad	1	..	..	..	..	..	..	..	..	..
95	Government Hospital, Wadakkancherry	7	1	2	..	2	..
	Total	299	91	78	29	78	1

TABLE XV—(cont.)

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TABLE XV—(cont.)

Serial number	Name of Hospital	Coconut oil		Jaggery		Rice		Cereals, grams and their products		Miscellaneous		Total	
		T	Un.	T	Un.	T.	Un.	T.	Un.	T.	Un.		
Trichur District—(cont.)													
78	District Hospital, Trichur	13	..	..	..	..	..	13	1	..	163	51
79	Mental Hospital, Trichur	..	..	..	..	..	..	13	8	..	38	11
80	Maternity Hospital, Trichur	13	..	..	..	..	..	10	1	..	56	10
81	K. V. Sanatorium, Trichur kava	..	..	..	..	..	..	..	..	..	..	..
82	Government Hospital, Mulamkunnathu-Do.	10	..	..	..	..	..	..	..	..	..	..
83	Do.	..	..	..	..	..	..	..	..	..	..	..
84	Do.	15	..	..	..	..	..	13	5	..	76	15
85	Leprosy Hospital, Koratty	3	..	..	..	..	..	13	1	..	12	3
86	Irinjalakuda	6	..	..	..	..	..	10	1	..	24	4
87	Government Hospital, Chowghat	4	..	..	..	..	..	..	..	..	21	4
88	Do	7	..	..	..	..	..	..	..	..	82	8
89	Government Dispensary, Kattoor	2	..	..	..	..	..	..	..	..	15	3
90	Government Hospital, Tripprayar	2	..	..	..	..	..	..	..	..	21	3
91	Primary Health Centre, Mala	4	..	..	..	..	..	..	..	..	16	7
92	Government Hospital, Mattathur	..	..	..	..	..	..	..	..	..	28	13
93	Do	..	..	..	..	..	..	..	..	..	2	..
94	Do	8	..	..	..	..	..	..	..	..	35	..
95	Government Dispensary, Anthicad	2	..	..	..	..	..	..	..	..	13	4
96	Government Hospital, Wadakkancherry	10	..	..	..	..	..	..	..	..	50	9
	Total	111	1	..	..	..	109	27	5	..	601	148

TABLE XV—(cont.)

Serial number	Name of Hospital	Milk		Butter		Ghee		Bread		Coffee	
		T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.
1	2	3	4	5	6	7	8	9	10	11	12
Palghat District											
96	District Hospital, Palghat	14	2	..	..	..	..	17	6	16	1
97	Taluk Headquarters Hospital, Alathur	8	1	..	..	..	..	18	5	13	..
98	Government Hospital, Chittoor	2	..	..	..	..	..	8	4	6	..
99	Do. Dispensary, Mannarghat	..	..	..	..	..	..	3	2	2	..
100	Do. Hospital, Nemmara	15	7	..	..	..	..	2	2	4	..
101	Do. Hospital, Ottappalam	9	..	..	..	2	..	11	1	11	..
102	Do. Hospital, Ponnani	13	1	..	..	12	..	13	2	13	..
103	Do. Hospital, Perinthalmanna	64	12	..	..	14	..	18	10	15	2
104	Primary Health Centre, Koduvayur	1	..	..	..	..	..	..	..	..	..
Total		126	23	..	..	28	..	85	32	80	3
Kozhikode District											
105	General Hospital, Calicut	12	1	2	..	2	..	15	..	11	..
106	Medical College Hospital, Calicut	25	1	2	..	..	..	59	3	29	..
107	Mental Hospital, Calicut	13	..	..	..	16	..	17	1	14	..
108	Taluk Headquarters Hospital, Badagara	17	2	..	..	..	..	11	6	10	2
109	Government Hospital, Nilampur	14	2	13	..	14	5	13	..
110	Do. Nadapuram	3	1	11	2	13	4	12	2

TABLE XV—(cont.)

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TABLE XV—(cont.)

Serial number	Name of Hospital	Coconut oil		Jaggery		Rice		Cereals, grams and their products		Miscellaneous		Total	
		T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.		
Palghat District—(cont.)													
96	District Hospital, Palghat	13	14	15	16	17	18	19	20	21	22	23	24
97	Taluk Headquarters Hospital, Alathur	13	13	13	13	13	13	13	13	13	13	13	13
98	Government Hospital, Chittoor	8	1	1	1	1	1	1	1	1	1	1	1
99	Government Dispensary, Mannarghat	1	1	1	1	1	1	1	1	1	1	1	1
100	Government Hospital, Nemmara	3	1	1	1	1	1	1	1	1	1	1	1
101	" Ottappalam	11	11	11	11	11	11	11	11	11	11	11	11
102	" Ponnani	13	13	13	13	13	13	13	13	13	13	13	13
103	Primary Health Centre, Perinthalmanna	15	14	14	14	14	14	14	14	14	14	14	14
104	Primary Health Centre, Koduvayur	..	..	..	..	..	..	..	..	..	..	..	..
	Total	77	66	66	66	66	66	66	66	66	66	66	66
Kozhikode District—(cont.)													
105	General Hospital, Calicut	13	12	12	12	12	12	12	12	12	12	12	12
106	Medical College Hospital, Calicut	29	15	15	15	15	15	15	15	15	15	15	15
107	Mental Hospital, Calicut	16	16	16	16	16	16	16	16	16	16	16	16
108	Taluk H. Q. Hospital, Calicut	10	10	10	10	10	10	10	10	10	10	10	10
109	Government Hospital, Badagara	13	13	13	13	13	13	13	13	13	13	13	13
110	Do. Nadapuram	12	12	12	12	12	12	12	12	12	12	12	12

TABLE XV—(cont.)

Serial number	Name of Hospital	Coconut oil		Jaggery		Rice		Cereals, grams and their products		Miscellaneous		Total	
		T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.
		13	14	15	16	17	18	19	20	21	22	23	24
Kozhikode District—(cont.)													
111	Government Hospital, Maners	14	..	14	..	..	..	14	1	..	..	102	7
112	Do, Vaithiri	..	..	9	..	..	..	5	1	..	..	33	5
113	Taluk Headquarters Hospital, Quilandy	13	3	15	..	..	..	16	6	..	..	91	13
114	Taluk Headquarters Hospital, Tirur	11	..	11	..	..	..	11	1	..	..	76	7
115	Government Dispensary, Thiroorangadi	1	..	1	..	..	..	1	..	..	..	6	..
116	Government Hospital, Kalpetta	1	..	6	..	..	..	2	2	..	..	31	6
117	Police Hospital, Malapuram	..	..	..	..	..	..	..	..	..	..	5	4
118	Government Dispensary, Tamarassery	..	..	2	..	..	..	2	..	..	..	7	1
	Total	193	3	136	..	..	..	161	46	..	..	980	110
Cannanore District—(cont.)													
119	District Hospital, Cannanore	13	..	13	..	..	..	14	..	..	..	215	15
120	Government Hospital, Tellicherry	12	..	11	..	..	..	15	8	..	..	93	15
121	Taluk Headquarters Hospital, Kasargod	14	..	14	..	..	..	23	1	..	..	118	7
122	Government Dispensary, Inkkur	1	..	1	..	..	..	1	1	..	..	6	2
123	Government Hospital, Kanhangad	10	..	10	..	..	..	10	..	..	..	50	1

TABLE XV—(cont.)

Serial number	Name of Hospital	Milk		Butter		Ghee		Bread		Coffee	
		T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.
1	2	3	4	5	6	7	8	9	10	11	12
Cannanore District—(cont.)											
124	Government Dispensary, Karivallur	1	1	1	..	..	..	1	1	1	..
125	Government Hospital, Manantoddy	17	7	..	..	..	..	2	..	8	..
126	T. B. Sanatorium, Pariyaram	40	17	..	..	..	..	26	5	34	..
127	Government Dispensary, Payyannur	5	2	3	..	1	..	8	5	4	..
128	Do.	1	..	..	..	..	..	1	..	1	..
129	Government Hospital, Taliparamba	5	3	..	..	..	..	6	3	5	2
130	Central Jail Hospital, Cannanore	5	2	..	..	..	..	..	..	..	1
131	Government Dispensary, Panamaram	1	..	..	..	..	..	1	1	1	..
132	Primary Health Centre, Pappinissery	1	..	..	..	..	..	1	1	1	..
Total		245	45	45	8	15	..	91	24	106	4
Grand total		3049	1166	63	10	101	3	816	219	631	60

TABLE XV--(cont.)

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TABLE XV—(cont.)

Serial number	Name of Hospital	Coconut oil		Jaggery		Rice		Cereals, grams and their products		Miscellaneous		Total	
		T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.	T.	Un.
		13	14	15	16	17	18	19	20	21	22	23	24
Cannanore District—(cont.)													
124	Government Dispensary, Karivallur	1	8	..	..	..	..	1	8	..	..	7	2
125	Government Hospital, Manantoddy	..	..	..	..	..	..	29	4	..	..	51	12
126	T.B. Sanatorium, Parayaram	..	..	..	..	..	..	3	1	..	..	196	26
127	Government Dispensary, Payyannur	..	..	..	..	..	..	1	5	..	..	30	7
128	Do	..	..	..	..	..	..	..	..	..	..	7	1
129	Government Hospital, Taliparamba	..	..	..	..	..	..	..	..	..	..	31	8
130	Central Jail Hospital, Cannanore	..	..	..	..	..	..	..	..	..	..	6	3
131	Government Dispensary, Panamaram	..	..	..	..	..	..	..	..	..	..	6	3
132	Primary Health Centre, Pappunusery	..	..	..	..	..	..	..	..	..	..	6	1
Total		103	..	..	..	..	..	112	21	..	..	822	102
Grand total		769	369	..	4	2	912	161	41	..	..	6755	1622

TABLE XVI

Details of prosecutions launched, cases disposed and fines realised in Food Adulteration cases in the Municipalities during 1966-67

Serial number	Name of Municipality	No. of samples received for analysis	No. found adulterated	No. of prosecutions launched	No. of cases disposed			Fines realised				
					Total	Conviction	Acquittal	Total	Rs.	Maximum	Minimum	Average
1	2	3	4	5	6	7	8	9	10	11	12	
1	Trivandrum Corporation	482	36	34	38	33	5	3150	1000	25	95	
2	Calicut Corporation	480	41	21	54	29	25	3000	250	50	103	
3	Alleppey Municipality	300	12	11	107	105	2	3775	1000	50	37	
4	Ernakulam	301	28	31	43	41	2	4610	150	10	112	
5	Mattancherry	300	50	40	68	55	13	6975	250	75	126	
6	Trichur	313	24	26	31	25	6	5460	500	30	218	
7	Palghat	300	44	36	36	30	6	5195	1000	5	173	
8	Quilon	300	23	30	32	28	4	6800	600	100	242	

9	Kottayam	..	300	50	42	26	10	16	2100	500	50	210
10	Kayamkulam	..	121	4	9	7	7	..	850	300	75	121
11	Mavelikara	..	120	3	3	3	2	1	1600	1000	100	100
12	Thiruvalla	..	120	5	5	3	2	1	600	500	100	300
13	Changanacherry	..	121	8	5	3	2	1	900	300	150	450
14	Sherattai	..	120	8	10	11	10	1	3475	1000	100	347
15	Vaikom	..	120	10	10	6	5	1	265	50	40	58
16	Palai	..	120	3	2	3	2	1	700	350	350	350
17	Perumbavoor	..	120	8	9	6	5	1	551	200	51	110
18	Parur	..	121	3	4	..	..	..	..	..	..	..
19	Irinjalakuda	..	55	5	4	8	8	..	1450	500	50	181
20	Kunnamkulam	..	121	9	10	11	9	2	935	250	35	104
21	Chittur-Tattamangalam	..	120	21	23	21	20	1	3035	300	50	151
22	Fort Cochin	..	122	5	6	10	8	2	900	150	100	112
23	Tellicherry	..	120	5	10	19	15	4	1200	200	25	80
24	Cannanore	..	121	35	21	22	22	..	5730	1000	50	260
25	Alwaye	..	120	11	13	9	6	3	1775	1000	50	296
26	Aitungal	..	120	6	3	3	1	2	..	..	..	..

TABLE XVI—(cont.)

Serial number	Name of Municipality	No. of samples received for analysis	No. found adulterated	No. of prosecutions launched	No. of cases disposed			Fines realised			
					Total	Conviction	Acquittal	Total	Maximum	Minimum	Average
1	2	3	4	5	6	7	8	9	10	11	12
27	Badagara Municipality	..	4	4	4	2	2	900	600	300	450
28	Muvattupuzha "	..	19	53	19	18	1	4061	1000	51	225
29	Neyyattinkara "	..	13	20	31	29	2	915	40	20	32
30	Kasaragode "	..	3	..	..	..	..	..	..	..	..
31	Guruvayur Township	..	4	4	6	6	..	1400	500	100	233
	Total	..	505	499	640	535	105	72307	1000	5	131

Details of prosecution launched, cases disposed and fines realised in food adulteration cases in the Panchayats during 1966-67

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TABLE XVII
Prosecution launched, cases disposed and fines realised in food adulteration cases in the Panchayats during 1966-67

Serial number	Name of Panchayat	No. of samples received for analysis	Number found adulterated	No. of prosecutions launched	No. of cases disposed			Fines realised			
					Total	Conviction	Acquittal	Total Rs.	Maximum Rs.	Minimum Rs.	Average Rs.
1	2	3	4	5	6	7	8	9	10	11	12
Trivandrum District											
1	Andoorkonam	12	..	2	2	..	..	2000	1000	1000	1000
2	Anad	2	..	2	1	1	Information not furnished	40	40	40	40
3	Aruvikkara	2	..	1	4	3	..	620	500	20	206
4	Azhoo	12	..	2	..	..	..	50	..	50	50
5	Anjengo	12	..	..	1	..	Information not furnished	..	..	..	..
6	Athiyannur	10	..	..	..	..	..	..	..	..	..
7	Balarampuram	12	..	..	2	..	..	200	200	200	200
8	Chettiyiakom	10	..	..	..	..	..	..	..	..	..
9	Chirayunkil	12	..	..	1	..	..	..	..	..	..
10	Chiruvayur	24	..	..	2	..	Information not furnished	..	..	..	..
11	Edava	12	..	..	1	..	..	..	..	..	..
12	Elakamon	10	..	..	..	..	..	..	..	..	..
13	Kadimankulam	12	..	..	..	..	..	..	..	..	..
14	Kashakootam	12	..	..	..	..	..	..	..	..	..
15	Karavaram	12	..	..	..	..	..	..	..	..	..
16	Kilimanoor	12	..	..	..	..	..	..	..	..	..
17	Kadakkavoor	12	..	..	..	..	..	..	..	..	..
18	Karakulam	12	..	..	..	..	..	..	..	..	..
19	Keezhvalam	12	..	..	..	..	..	..	..	..	..
20	Kunnathukal	2	..	..	..	..	..	..	..	..	..
21	Kallikkad	12	..	..	..	..	..	..	..	..	..
22	Mangalapuram	8	..	..	..	..	..	..	..	..	..
23	Madavoor	12	..	..	..	..	..	..	..	..	..
24	Mudakal	12	..	..	..	..	..	..	..	..	..
		4	..	2	2	..	Information not furnished	95	75	87	87
		..	..	Information not furnished	Information not furnished	Information not furnished	Information not furnished	50	45	45	47

TABLE XVII—(cont.)

Serial number	Name of Panchayat	No. of samples received for analysis	Number found adulterated	No. of prosecutions launched	No. of cases disposed			Fines realised		
					Total	Conviction	Acquitted	Total	Maximum	Minimum
1	2	3	4	5	6	7	8	Rs.	Rs.	Rs.
Trivandrum District— (cont.)										
25	Maranallur	12	2	3	3	1	2	..	..	..
26	Nagaroor	12	2	1	1	1	..	..	..	..
27	Navakulam	12	2	1	1	1	..	1000	1000	1000
28	Nedumangad	8	3	1	1	..	1	..	..	..
29	Nanniode	13	1	..	..	..	..	..	..	..
30	Nellamad	12	1	..	4	3	1	180	70	50
31	Ottasekharangalam	10	4	..	..	..	..	..	..	..
32	Parasala	3	2	..	..	..	..	..	..	..
33	Pothencode	12	1	4	2	1	1	300	300	300
34	Pazhayakunnumel	12	1	2	1	..	1	..	..	..
35	Pulimath	12	1	1	1	..	..	..	..	..
36	Peringamala	12	1	1	..	..	..	..	..	..
37	Pallichal	5	1	..	..	2	..	225	150	75
38	Perinkadavila	12	5	3	2	..	..	..	..	..
39	Sreekariyam	12	1	..	..	..	..	..	..	..
40	Ulloor	4	..	..	..	..	..	..	..	..
41	Vattiyoorkavu	10	..	..	Information not furnished			1300	1000	300
42	Vembayam	2	..	2	2	2	..	..	..	..
43	Vamanapuram	12	..	..	..	..	..	..	..	..
44	Vakkom	12	..	1	..	..	..	..	..	..
45	Varkala	12	..	..	Information not furnished			640	200	50
46	Vellarada	12	9	4	6	6	..	..	..	106
Total		437	54	45	48	38	10	10125	1000	20
								266		

[illegible]

TABLE XVII—(cont.)

Serial number	Name of Panchayat	No. of samples received for analysis	Number found adulterated	No. of prosecutions launched	No. of cases disposed			Fines realised			
					Total	Conviction	Acquittal	Total Rs.	Maximum Rs.	Minimum Rs.	Average Rs.
1	2	3	4	5	6	7	8	9	10	11	12
Alleppey District—(cont.)											
138	Arattupuzha	10	..	5	6	6	..	590	300	40	98
139	Ambalapuzha	4	..	4	4	4	..	650	200	100	162
140	Aryad	12	..	2	2	2	..	300	200	100	150
141	Aror	12	..	..	..	..	..	600	600	600	600
142	Budhanoor	12	1	3	2	2	..	..	..	..	..
143	Baranikavu	8	2	..	..	..	..	..	..	..	..
144	Chengannur	20	..	..	2	2	..	180	100	80	90
145	Cheriyannad	12	1	3	2	2	..	..	..	..	..
146	Chunakara	9	..	..	..	..	..	..	..	..	..
147	Chennithala	..	..	..	..	..	..	..	..	..	..
148	Triperimthura	12	1	1	1	1	..	300	300	300	300
149	Chettikulangara	12	..	1	..	..	..	180	50	40	45
150	Cheppad	10	..	4	4	4	..	..	..	..	..
151	Cheruthana	..	..	..	..	..	..	..	..	..	..
152	Champakulam	8	..	..	..	..	..	..	..	..	..
153	Chennam-Pallipuram	12	2	..	..	..	..	..	..	..	..
154	Chingoli	7	..	..	..	..	..	..	..	..	..
155	Ezhupunna	12	1	1	1	1	1	..	..	..	..
156	Ezhumattoor	12	..	1	1	1	1	500	500	500	500
157	Eraviperoor	12	..	1	1	1	..	..	..	..	..
158	Edathua	7	..	..	..	..	..	..	..	..	..
159	Haripad	12	..	..	..	..	..	..	..	..	..
160	Kalloopara	10	..	..	..	..	..	..	..	..	..
161	Kaviyoor	12	..	..	..	..	..	..	..	..	..
162	Kottanad	11	..	..	..	..	..	..	..	..	..
163	Kottangal	10	2	2	2	2	..	1000	500	500	500

Information not furnished

163	Kunnamthanam	12	..	2	2	6	..	1000	500	500
164	Koipuram	12	..	1	1	..	..	100	100	100
165	Kadapra	10	1	2	2	..	..	100	100	100
166	Kuttapuzha	10	..	1	1	..	..	..	..	..
167	Kuttoor	7	..	1	1	..	..	..	..	..
168	Kulanada	13	..	6	6	..	280	..	40	46
169	Kandalloor	10	..	..	..	Information not furnished	..	..	..	..
170	Karthigapally	12	..	..	..	Information not furnished	..	..	..	..
171	Karuvatta	7	..	..	..	..	..	..	..	..
172	Kumarapuram	10	..	..	..	..	250	250	250	250
173	Kainakary	12	1	1	1	..	300	300	300	300
174	Kavalam	12	..	..	..	..	..	..	..	..
175	Kadakkarapally	12	..	..	..	..	..	..	..	..
176	Kodomthuruthu	12	1	1	1	..	100	100	100	100
177	Kuttiathode	12	..	..	..	..	300	300	300	300
178	Kanjukuzhi	12	1	1	1	..	100	100	100	100
179	Mattathilbhagam	12	1	1	1	..	300	300	300	300
180	Mannancherry	12	1	1	1	..	250	250	250	250
181	Muhamma	12	..	1	1	..	300	300	300	300
182	Mararikulam North	12	..	2	2	..	250	250	250	250
183	Mararikulam South	12	..	1	1	..	150	150	150	150
184	Muttar	12	2	1	1	..	350	350	350	350
185	Muthukulam	10	..	6	6	..	100	100	100	100
186	Mavelikkara-Thekkkara	3	1	4	4	..	400	400	400	400
187	Mannar	13	..	2	2	..	1500	1500	1500	1500
188	Mallappally	12	..	..	..	..	..	..	..	..
189	Mezhuvelli	10	..	..	..	..	..	..	..	..
190	Mulakuzha	12	..	..	..	..	180	180	180	180
191	Nedumpuram	5	..	2	2	..	100	100	100	100
192	Niranam	5	2	..	..	..	100	100	100	100
193	Nooranad	10	..	..	..	..	300	300	300	300
194	Nedumudy	5	..	1	1	..	..	..	..	..
195	Nee lampoor	12	..	2	2	..	..	..	..	..
196	Puramattam	12	1	..	..	..	130	130	130	130
197	Perungara	8	..	..	..	..	..	..	..	..
198	Pathiyoor	10	..	3	3	..	..	..	..	..
199	Palamel	12	3	1	1	..	1000	1000	1000	1000
200	Pandalam-Thekkkara	12	..	1	1	..	..	..	..	..

TABLE XVII (cont.)

Serial number	Name of Panchayat	No. of samples received for analysis	Number found adulterated	No. of prosecutions launched	No. of cases disposed			Fines realised			
					Total	Conviction	Acquittals	Total	Maximum	Minimum	Average
1	2	3	4	5	6	7	8	9	10	11	12
Alleppey District—(cont.)											
201	Pandalam-Thonnallur	12	2	1	2	1	1	..	..	..	..
202	Puliyur	12	..	..	..	..	..	..	..	..	..
203	Pallipad	12	1	3	3	3	..	220	125	15	73
204	Punnappia	11	1	3	3	3	..	550	300	50	183
205	Purakad	10	1	3	3	3	..	..	..	..	..
206	Pulimkundu	12	..	..	1	1	..	300	300	300	300
207	Pattanakad	24	..	1	3	3	..	275	100	75	91
208	Panavally	12	1	3	3	3	..	..	..	..	..
209	Pandanad	10	..	2	2	2	..	300	150	150	150
210	Ramanankari	12	..	2	2	..	..	..	..	..	..
211	Sherthallai South	12	..	1	2	1	1	100	100	100	100
212	Thaneermukkom	12	..	1	2	..	..	..	..	..	..
213	Thuravoor	12	..	..	..	..	..	..	..	..	..
214	Thalavady	8	..	..	..	..	..	..	..	..	..
215	Thakazhy	9	1	1	1	1	..	100	100	100	100
216	Thrikunnapuzha	5	..	..	Information not furnished	Information not furnished	..	..	..	..	..
217	Thazhakara	12	1	2	2	2	..	1000	500	500	500
218	Thimpamon	13	1	1	1	1	..	500	500	500	500
219	Thiruvavandoor	10	..	1	1	1	..	400	400	400	400
220	Thottapuzhasseri	12	..	..	..	..	..	..	..	..	..
221	Thycattusseri	12	..	..	..	..	..	..	..	..	..
222	Thamarakulam	8	..	..	..	..	..	..	..	..	..
223	Vennony	12	..	..	..	..	..	..	..	..	..
224	Vallikunnam	10	1	..	..	..	..	..	..	..	..
225	Veeyapuram	10	..	..	Information not furnished	Information not furnished	..	..	..	..	..

TABLE XVII—(cont.)

Serial number	Name of Panchayat	No. of samples received for analysis	Number found adulterated	No. of prosecutions launched	No. of cases disposed			Fines realised			Average Rs.
					Total	Conviction	Acquittals	Total Rs.	Maximum Rs.	Minimum Rs.	
1	2	3	4	5	6	7	8	9	10	11	12
Kottayam District —(cont.)											
257	Mulakulam	6	1	..	..	..	..	..	..	..	..
258	Manjoor	9	1	..	..	..	..	..	..	..	..
259	Maravanthuruthy	11	..	..	Information not furnished	7	..	..	..	..	771
260	Mundakayam	10	..	7	..	..	..	5400	1000	300	..
261	Marayoor	10	1	..	..	..	..	..	300	250	350
262	Munnar	48	2	..	Information not furnished	3	1	1050	100	100	100
263	Mannamkandam	11	1	1	1	1	..	..	..	..	..
264	Mutholy	2	..	..	..	..	..	..	..	..	..
265	Meenachil	5	1	..	..	..	..	..	..	..	..
266	Neezhoor	3	..	..	..	..	..	..	..	..	..
267	Nattakom	8	..	..	..	..	..	..	..	..	..
268	Neendoor	10	2	..	..	..	..	..	..	..	..
269	Nedumkunnam	12	4	2	2	2	..	1200	800	400	600
270	Pallivasal	10	..	..	..	..	..	..	..	..	..
271	Parathode	10	1	1	3	3	..	2600	1000	600	860
272	Puthuppally	9	..	..	..	..	..	..	..	..	..
273	Peruvanthanam	12	2	4	4	3	1	1450	600	350	480
274	Pampadumpara	12	2	5	5	5	..	975	300	75	195
275	Paipadu	12	..	1	1	1	..	200	200	200	200
276	Panachikad	3	..	..	..	..	..	..	..	..	..
277	Pallikkathodu	3	..	..	..	..	..	..	..	..	..
278	Ramapuram	12	..	..	..	..	..	..	..	..	..
279	Rajakad	10	..	1	1	1	..	250	250	250	250
280	Thiruvarpu	3	..	..	..	..	..	..	..	..	..
281	Thalayazhom	10	1	1	..	..	..	..	..	..	..

TABLE XVII—(cont.)

Serial number	Name of Panchayat	No. of samples received for analysis	Number found adulterated	No. of prosecutions launched	No. of cases disposed		Fines realised		
					Total	Conviction	Total	Maximum	Minimum
1	2	3	4	5	6	7	8	Rs.	Rs.
	Ernakulam District								
	—(cont.)								
313	Keezhmad	10	2	1	1	1	..	75	75
314	Kallurkad	9	1	1	..	..	..	..	..
315	Karimkunnamm	10	..	..	2	..	2	..	..
316	Kumaramangalam	12	1	1	..	..	..	..	..
317	Kalady	12	..	..	..	..	..	..	..
318	Karukutty	..	..	..	Information not furnished			..	..
319	Kunnukara	13	2	..	..	..	..	..	..
320	Kumbalam	8	..	..	2	..	..	150	75
321	Kuzhipilli	6	..	..	..	2	..	..	..
322	Kumbalangi	3	..	..	..	..	..	125	112
323	Karumallur	12	1	1	1	1	..	125	125
324	Kottuvally	12	..	..	..	..	..	..	..
325	Kadungalloor	12	..	1	3	3	..	300	200
326	Keerampara	6	..	..	..	..	..	..	..
327	Kalamassery	12	..	..	..	..	..	..	..
328	Koovapady	5	..	..	..	..	..	..	..
329	Mookannur	12	1	1	..	..	..	..	..
330	Manjellur	10	..	3	1	1	1	50	50
331	Manakad	10	..	1	1	..	1	150	..
332	Malayattoor Nilleswaram	12	..	..	..	..	..	..	..
333	Maradu	13	1	..	..	..	..	..	..
334	Mulavukad	2	..	..	..	..	..	..	..
335	Manced	9	2	2	..	..	..	..	..
336	Mulanthuruthy	12	4	..	4	4	..	300	100
337	Narakal	9	2	1	2	2	..	150	125

338	Nayambalam	8	2	2	2	2	250	150	100	125
339	Nedumpassery	12	1	..	..	..	..	..	..	..
340	Nellikuzhy	10	..	..	..	..	..	..	..	..
341	Parapuzha	12	..	..	..	..	..	..	..	..
342	Parakada	12	..	..	..	..	..	..	..	..
343	Puthenvelikara	13	3	..	..	..	..	..	..	..
344	Pallipuram	7	1	..	..	..	70	70	70	70
345	Palluruthy	6	3	..	..	..	..	..	..	..
346	Piravam	10	1	..	..	..	1000	1000	1000	1000
347	Pampakuda	7	1	..	..	..	..	..	..	..
348	Ramamangalam	7	1	..	..	..	..	..	..	..
349	Rayamangalam	5	..	..	..	..	..	..	..	..
350	Scimulanagar	12	..	..	..	..	..	..	..	..
351	Thodupuzha	12	6	..	..	..	250	250	250	250
352	Trikkara	12	..	..	..	..	51	51	51	51
353	Thrippunithura	44	15	..	..	..	1965	300	65	191
354	Thirusankulam	12	5	..	..	..	500	200	100	125
355	Thirumarady	11	..	..	..	..	..	..	..	..
356	Udayampoor	6	..	..	..	..	..	..	..	..
357	Udayanapuram	3	..	..	..	..	..	..	..	..
358	Vennala	12	..	..	..	..	..	..	..	..
359	Vadakkakara	12	..	..	..	..	..	..	..	..
360	Varapuzha	12	1	..	..	..	100	100	100	100
361	Vyttila	16	3	..	..	..	100	100	100	100
362	Vazhakulam	10	4	..	..	..	..	..	..	..
363	Vengoor	5	1	..	..	..	..	..	..	..
364	Willington Island	5	1	..	..	..	..	..	..	..
Total		706	109	62	61	56	7691	1000	50	197
Trichur District										
365	Alur	12	1	1	1	1	100	100	500	100
366	Annamanada	12	..	..	..	..	..	..	..	..
367	Alacapa Nagar	9	..	1	1	1	200	200	200	200
368	Ayathole	12	1	..	..	..	..	..	..	..

TABLE XVII—(cont.)

Serial Number	Name of Panchayat	No. of samples received for analysis	Number found adulterated	No. of prosecutions launched	No. of cases disposed			Fines realised			
					Total	Conviction	Acquittals	Total	Maximum	Minimum	Average
1	2	3	4	5	6	7	8	9	10	11	12
Trichur District—(cont.)											
431	Paralam	10	1	1	1	1	..	100	100	100	100
432	Porkulam	12	1	1	1	1	..	200	200	200	200
433	Panjai	11	..	..	..	..	1	50	50	50	50
434	Pukode	12	1	1	1	1	..	150	150	150	150
435	Sree Narayanapuram	10	..	1	1	1	..	300	300	300	300
436	Trikkur	12	2	1	1	1	..	75	75	75	75
437	Totur	8	1	1	1	1	..	..	..	..	..
438	Tanniam	9	..	..	..	..	..	50	50	50	50
439	Thekkumkara	12	1	1	1	1	..	75	75	75	75
440	Thiruvilwamala	11	..	1	1	1	..	..	..	..	..
441	Talikulam	10	..	..	..	..	..	250	200	50	126
442	Thaikad	12	2	2	2	2	..	600	400	200	300
443	Vellangallur	12	3	2	2	2	..	100	100	100	100
444	Velukara	12	1	2	2	2	..	65	65	65	65
445	Varandarapalli	12	1	1	1	1	..	35	35	35	35
446	Vilvatom	10	..	..	..	..	..	..	..	..	..
447	Vallachira	11	1	1	1	1	..	250	250	250	250
448	Varavoor	11	..	1	1	1	..	350	250	50	70
449	Velur	10	..	1	1	1	..	..	..	..	..
450	Vadanapally	10	..	3	3	3	..	..	..	..	..
451	Valapad	12	1	1	1	1	..	..	..	..	..
452	Venkitangu	11	1	1	1	1	..	..	..	..	..
453	Wadakkancherry	10	..	..	5	5	..	..	..	..	..
	Total	984	69	100	101	89	12	12925	650	35	145

Palghat District

athethara	12	3	1	2	Information not furnished	400	250	150	200
nallur	6	1	..	..	..	..	..	..	..
apadi	12	..	..	..	..	..	..	..	..
paramba	12	..	..	..	..	..	..	..	..
gadipuram	11	..	..	..	..	..	..	..	..
anganadi	10	..	..	..	..	..	..	..	..
tholapara	10	..	..	..	..	..	..	..	..
ngode	9	..	..	..	..	..	..	..	..
thur	7	..	..	..	..	..	..	..	..
ilur	12	..	1	1	..	100	100	100	100
yalmannam	12	..	..	..	..	..	..	..	..
erpluseery	10	..	..	..	..	..	..	..	..
aliavara	10	..	..	..	..	..	..	..	..
aliavary	6	..	3	3	..	250	100	50	83
mananthuruthy	12	..	3	3	..	..	..	..	..
ankulam	12	..	..	..	..	..	..	..	..
appully	24	3	3	3	..	450	250	50	150
thempathy	12	4	..	..	..	..	..	..	..
thamayur	6	..	..	..	..	..	..	..	..
apattia	1	..	..	..	..	..	..	..	..
appal	12	4	1	1	..	100	100	100	100
mancherry	12	1	..	..	..	125	125	125	125
zhinjampara	12	5	2	2	..	139	75	60	67
aduvayoor	24	5	1	2	..	135	75	60	67
ilengode	12	1	1	2	..	100	100	100	100
vaserthy	12	..	..	..	..	..	..	..	..
thambra	10	..	1	1	..	..	..	..	..
thakencherry	12	2	1	1	..	80	80	80	80
thias	12	3	..	..	..	25	25	25	25
thannur	12	1	..	..	..	..	..	..	..
thapadum	9	1	..	..	..	..	..	..	..
manampathur	9	..	..	..	..	..	..	..	..
rimba	0	..	..	..	..	..	..	..	..
erliattoor	12	3	1	3	Information not furnished	20	100	50	83
thukallur	12	1	..	..	..	..	..	..	..
ppam	12	..	..	..	..	..	..	..	..

513	Nellepilly	12	2	1	1	2	1	1	1	100	100	100	100	100
516	Nellaya	12	1	1	1	1	1	1	1	100	100	100	100	100
517	Nellampattu	12	1	1	1	1	1	1	1	100	100	100	100	100
518	Nannamukku	7	1	1	1	1	1	1	1	100	100	100	100	100
519	Nagalassery	18	3	1	1	1	1	1	1	100	100	100	100	100
520	Nagallur	12	3	1	1	1	1	1	1	100	100	100	100	100
521	Ottapalam	12	3	1	1	1	1	1	1	100	100	100	100	100
522	Punnayur	4	1	1	1	1	1	1	1	100	100	100	100	100
523	Punnayurkulam	4	1	1	1	1	1	1	1	100	100	100	100	100
524	Pattancherry	12	3	1	1	1	1	1	1	100	100	100	100	100
525	Perumatty	12	1	1	1	1	1	1	1	100	100	100	100	100
526	Perungottukurusi	12	1	1	1	1	1	1	1	100	100	100	100	100
527	Peruvamba	12	2	1	1	1	1	1	1	100	100	100	100	100
528	Puthussery	12	3	1	1	1	1	1	1	100	100	100	100	100
529	Puthupariyaram	12	3	1	1	1	1	1	1	100	100	100	100	100
530	Pottassery	12	4	1	1	1	1	1	1	100	100	100	100	100
531	Perinthalmanna	8	4	1	1	1	1	1	1	100	100	100	100	100
532	Pattambi	52	2	1	1	1	1	1	1	100	100	100	100	100
533	Ponnam	12	2	1	1	1	1	1	1	100	100	100	100	100
534	Parli	5	1	1	1	1	1	1	1	100	100	100	100	100
535	Pirayuri	12	2	1	1	1	1	1	1	100	100	100	100	100
536	Polpuilly	12	1	1	1	1	1	1	1	100	100	100	100	100
537	Pulamanhole	13	1	1	1	1	1	1	1	100	100	100	100	100
538	Puzhakathuri	10	1	1	1	1	1	1	1	100	100	100	100	100
539	Pattithara	5	1	1	1	1	1	1	1	100	100	100	100	100
540	Perumpadapu	6	1	1	1	1	1	1	1	100	100	100	100	100
541	Pallasana	12	1	1	1	1	1	1	1	100	100	100	100	100
542	Puthucode	9	4	1	1	1	1	1	1	100	100	100	100	100
543	Shorannur	48	1	1	1	1	1	1	1	100	100	100	100	100
544	Sreekrishnapuram	11	1	1	1	1	1	1	1	100	100	100	100	100
545	Thenkurusi	8	1	1	1	1	1	1	1	100	100	100	100	100
546	Thachanattukara	12	1	1	1	1	1	1	1	100	100	100	100	100
547	Thazhakoode	12	1	1	1	1	1	1	1	100	100	100	100	100
548	Thiruvangapuram	12	2	1	1	1	1	1	1	100	100	100	100	100
549	Thavannur	10	1	1	1	1	1	1	1	100	100	100	100	100
550	Thannur	8	1	1	1	1	1	1	1	100	100	100	100	100
551	Thrikkidari	5	1	1	1	1	1	1	1	100	100	100	100	100
552	Trithala	5	1	1	1	1	1	1	1	100	100	100	100	100

Information not furnished

TABLE XVII—(cont.)

Serial number	Name of Panchayat	No. of samples received for analysis	Number found adulterated	No. of prosecutions launched	No. of cases disposed			Fines realised			
					Total	Conviction	Acquittals	Total Rs.	Maximum Rs.	Minimum Rs.	Average Rs.
1	2	3	4	5	6	7	8	9	10	11	12
	Kozhikode District										
	—(cont.)										
609	Kizhakothe	12	1	..	..	..	..	..	..	..	..
610	Koduvally	12	1	..	..	..	..	..	..	..	..
611	Kayakody	..	..	1	1	1	..	50	50	50	50
612	Koothaly	9	1	1	1	1	..	100	100	100	100
613	Kottur	2	..	..	..	..	..	..	..	..	..
614	Kuttiady	9	..	..	2	1	1	200	200	200	200
615	Kavilampara	7	..	2	2	..	2	..	..	..	..
616	Kunnummel	5	..	2	2	..	..	..	..	..	..
617	Kalpetta	24	3	..	2	1	1	100	200	100	100
618	Kaniyampettah	11	1	1	1	..	..	..	..	..	..
619	Kakkodi	7	..	..	..	..	..	..	..	..	..
620	Kayanna	2	..	..	..	..	..	..	..	..	..
621	Kottathara	4	..	..	..	..	..	..	..	..	..
622	Kodencherry	12	1	1	..	..	..	..	..	..	..
623	Kodiyathur	12	1	1	..	..	..	..	..	..	..
624	Kunnamangalam	24	2	3	1	..	1	..	..	..	..
625	Kuruvattur	12	1	..	..	..	..	..	..	..	..
626	Muttil	12	3	1	1	..	1	..	..	..	..
627	Madavoor	14	3	..	..	..	..	..	..	..	..
628	Meppadi	17	3	8	12	3	9	300	100	100	100
629	Moodadi	12	2	2	2	1	1	300	300	300	300
630	Meppayur	8	..	..	..	..	..	..	..	..	..
631	Mavoor	9	2	..	..	..	..	..	..	..	..
632	Maniyur	12	..	..	..	..	..	..	..	..	..
633	Manjeri	39	7	..	..	..	..	..	..	..	..
						Information not furnished					

TABLE XVII—(cont.)

Serial number	Name of Panchayat	No. of samples received for analysis	Number found adulterated	No. of prosecutions launched	No. of cases disposed			Fines realised			
					Total	Conviction	Acquittals	Total Rs.	Maximum Rs.	Minimum Rs.	Average Rs.
1	2	3	4	5	6	7	8	9	10	11	12
Kozhikode District— (cont.)											
672	Thorayur	12	2	2	2	2	..	150	100	50	75
673	Thirurangady	8	..	..	..	..	..	..	..	..	..
674	Thanalur	12	1	..	..	..	..	..	..	..	..
675	Thamarassey	13	1	..	..	..	..	..	..	..	..
676	Thalakad	..	..	..	..	..	..	..	..	..	..
677	Thanur	24	1	..	1	1	..	150	150	150	150
678	Thirunavaya	..	..	..	..	..	..	..	..	..	..
679	Tirur	..	..	..	..	..	..	..	..	..	..
680	Thiruvally	12	3	..	..	..	..	..	..	..	..
681	Thenmala	..	..	..	..	..	..	..	..	..	..
682	Thuvvur	6	..	..	..	..	..	..	..	..	..
683	Thennipalam	8	..	..	..	..	..	..	..	..	..
684	Thalakulathur	6	..	..	..	..	..	..	..	..	..
685	Thiruvampady	12	2	2	..	..	..	..	..	..	..
686	Uliyeri	2	..	..	..	..	..	..	..	..	..
687	Unnikulam	2	..	..	..	..	..	..	..	..	..
688	Urangathiri	2	..	..	..	..	..	..	..	..	..
689	Uragom	11	1	1	..	..	..	..	..	..	..
690	Vengara	..	..	..	..	..	..	..	..	..	..
691	Vazhakad	..	1	..	..	..	..	..	..	..	..
692	Vettom	..	..	..	..	..	..	..	..	..	..
693	Vanimal	8	..	..	5	2	3	175	100	75	87
694	Vythiri	24	3	2	4	3	1	300	100	100	100
695	Valem	6	..	..	..	..	..	..	..	..	..
696	Valavannur	12	2	..	..	..	..	..	..	..	..

	12	..	..	..	..	1	81	42	39	4905	300	30	..	..
697 Velliappilly	12	..	..	..	..	..	..	..	..	150	..	..	..	..
698 Valthinna	12	..	..	..	..	..	..	..	..	..	..	150	..	150
699 Wandoor	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	1237	107	75	81	42	39	4905	300	30	117				
Cananore District														
700 Ashkode	10	1	5	4	2	2	350	250	100	175		100	..	175
701 Anjarakandy	11	..	1	1	1	..	50	50	50	50		50	..	50
702 Aralam	9	..	..	..	..	..	..	..	..	..		..	..	..
703 Andoor	11	..	..	..	..	..	..	..	..	..		..	..	..
704 Alanoor	13	..	..	..	..	..	..	..	..	..		..	..	..
705 Alupattom	10	..	..	..	..	..	..	..	..	..		..	..	..
706 Belur	10	..	..	..	..	..	..	..	..	..		..	..	..
707 Badiadka	10	..	..	..	..	..	..	..	..	..		..	..	..
708 Badiadka	2	..	..	..	..	..	..	..	..	..		..	..	..
709 Chemanad	10	..	..	..	..	..	..	..	..	..		..	..	..
710 Chengala	13	..	..	..	..	..	..	..	..	..		..	..	..
711 Cheruvathur	12	..	..	..	..	..	..	..	..	..		..	..	..
712 Chimeni	12	..	..	..	..	..	..	..	..	..		..	..	..
713 Chengalayil	12	..	..	..	..	..	..	..	..	..		..	..	..
714 Cherukunnu	10	..	..	..	..	..	..	..	..	..		..	..	..
715 Chirakkal	10	..	..	..	..	..	..	..	..	..		..	..	..
716 Chelora	10	..	..	..	..	..	..	..	..	..		..	..	..
717 Chellambra	..	..	..	..	..	..	..	..	..	..		..	..	..
718 Cheruthazhom	11	..	..	..	..	..	..	..	..	..		..	..	..
719 Chaloth	9	..	..	..	..	..	..	..	..	..		..	..	..
720 Chittariparamba	7	..	..	..	..	..	..	..	..	..		..	..	..
721 Chokli	5	..	..	..	..	..	..	..	..	..		..	..	..
722 Chembilode	15	..	..	..	..	..	..	..	..	..		..	..	..
723 Dharmadom	5	..	..	..	..	..	..	..	..	..		..	..	..
724 Delampady	9	..	..	..	..	..	..	..	..	..		..	..	..
725 Edavaka	12	..	..	..	..	..	..	..	..	..		..	..	..
726 Eramon	10	..	..	..	..	..	..	..	..	..		..	..	..
727 Elayavoor	12	..	..	..	..	..	..	..	..	..		..	..	..

TABLE XVII—(cont.)

Serial number	Name of Panchayat	No. of samples received for analysis	Number found adulterated	No. of prosecutions launched	No. of cases disposed			Fines realised			Average Rs.
					Total	Conviction	Acquittals	Total	Maximum Rs.	Minimum Rs.	
1	2	3	4	5	6	7	8	9	10	11	12
Cannanore District											
—(cont.)											
791	Pariyaram	10	1	1	..	2	..	1150	1000	150	575
792	Pilicode	13	1	2	..	..	1	..	..	..	..
793	Padne	11	1	2	1	..	1	..	..	..	..
794	Palikara	10	1	..	..	..	..	..	..	..	..
795	Panathady	8	1	..	..	..	..	..	..	..	..
796	Paivelika	..	..	..	..	..	..	60	60	60	60
797	Periagathur	5	1	5	1	1	..	..	..	..	..
798	Pullur-Periya	10	1	2	1	..	1	..	..	..	..
799	Ramanthaly	9	..	4	..	..	..	..	..	..	..
800	Sreekandapuram	10	5	4	1	..	..	50	50	50	50
801	Triturpur	10	2	4	1	1	..	50	50	50	50
802	Talimaramba	24	4	..	2	1	1	50	50	50	50
803	Thekkkadavu	10	4	1	..	..	..	50	50	50	50
804	Thiripringottur	12	1	1	1	1	..	100	100	100	100
805	Tavinhal	12	4	1	1	1	..	75	50	25	37
806	Thirunelli	12	6	5	2	2	..	30	30	30	30
807	Thondernad	12	2	..	1	1	..	..	..	..	..
808	Udma	9	2	..	..	..	..	..	..	..	..
809	Vengad	7	1	..	..	..	..	..	..	..	..
810	Vellamunda	12	2	..	..	..	..	..	..	..	..
811	Vorkady	5	1	..	..	..	..	..	..	..	..
	Total	1970	176	191	129	87	42	14025	1000	25	164
	Grand Total	1970	1970	191	733	601	430	..	..	..	..

